INDEX.

Further Offers of Proof Made After Findings.

Offer of Proof in Support of Motion for Withdrawal of Findings and Conclusions As To Misuse 3547
Offer of Proof on Market Share and Damages 3550
Affidavit of John Sinclair Ewing (United Kingdom) .. 3570
Affidavit of B. T. Reilly 3595
Affidavit of Thomas Ludlow 3606
Affidavit of John H. Carter 3616
Affidavit of James Thomson Masterton 3620
Affidavit of Charles Arthur White 3625
Affidavit of S. E. Allchurch 3627
Affidavit of W. J. C. Chapple 3700
Affidavit of E. P. Dale-Harris 3701
Affidavit of Alan Alfred Packer 3707
Affidavit of John Sinclair Ewing (Australia) 3708
Affidavit of Sir Arthur Warner 3716
Affidavit of James Inglis 3721
Affidavit of Alfred Garraway 3733
Affidavit of Arthur Barrs 3745
Affidavit of S. W. Goodwin 3746
Affidavit of John Thorpe 3749
Affidavit of Bede Solomons 3751
Affidavit of Norman Levy 3754
Affidavit of William Gordon Wallace 3755
Deposition of Adam Ramsay 3758
Deposition of William Gundry Mills 3818
Zenith's London Deposition Ex. No. 6 3887
Zenith's London Deposition Ex. No. 9 3891

Zenith's London Deposition Ex. No. 10 3896
Zenith's London Deposition Ex. No. 12 3898
Zenith's London Deposition Ex. No. 13 3902
Zenith's London Deposition Ex. No. 27 3909
Plaintiff's London Deposition Ex. No. 17 3918
Plaintiff's London Deposition Ex. No. 18 3925
Plaintiff's London Deposition Ex. No. 19 3933
Plaintiff's London Deposition Ex. No. 20 3940
Plaintiff's London Deposition Ex. No. 26 3952
Plaintiff's London Deposition Ex. No. 27 3962
Plaintiff's London Deposition Ex. No. 33 3968
Plaintiff's London Deposition Ex. No. 34 3969
Plaintiff's London Deposition Ex. No. 37 3970
Plaintiff's London Deposition Ex. No. 38 3971
Plaintiff's London Deposition Ex. No. 40 3972
Plaintiff's London Deposition Ex. No. 41 3975
Plaintiff's London Deposition Ex. No. 42 3976
Plaintiff's London Deposition Ex. No. 43 3979
Plaintiff's London Deposition Ex. No. 44 3980
Plaintiff's London Deposition Ex. No. 46 3981
Plaintiff's London Deposition Ex. No. 47B 3983
Plaintiff's London Deposition Ex. No. 47E 3984
Plaintiff's London Deposition Ex. No. 47F 3985
Plaintiff's London Deposition Ex. No. 47G 3986
Plaintiff's London Deposition Ex. No. 47K 3987
Plaintiff's London Deposition Ex. No. 47M 3989
Plaintiff's London Deposition Ex. No. 47P 3990
Plaintiff's London Deposition Ex. No. 47V 3992
Plaintiff's London Deposition Ex. No. 47X 3993
Plaintiff's London Deposition Ex. No. 47AA 3995
Plaintiff's London Deposition Ex. No. 48 3996
Plaintiff's London Deposition Ex. No. 51 4000
Plaintiff's London Deposition Ex. No. 52 4007

Plaintiff's London Deposition Ex. No. 54 4021
Plaintiff's London Deposition Ex. No. 55 4021
Plaintiff's London Deposition Ex. No. 56 4022
Plaintiff's London Deposition Ex. No. 57 4023
Plaintiff's London Deposition Ex. No. 58 4023
Plaintiff's London Deposition Ex. No. 59 4025
Plaintiff's London Deposition Ex. No. 60 4031
Plaintiff's London Deposition Ex. No. 61 4098
Plaintiff's London Deposition Ex. No. 62 4108
Plaintiff's London Deposition Ex. No. 63 4116
Plaintiff's London Deposition Ex. No. 64 4116
Plaintiff's London Deposition Ex. No. 66 4117
Statement Required by Rule 12(d) of the Rules of the United States Court of Appeals, for the Seventh Circuit 4130

1799 IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

MEMORANDUM IN SUPPORT OF PLAINTIFF'S MOTION FOR WITHDRAWAL OF FINDINGS AND CONCLUSIONS AS TO MISUSE OF PATENTS

• • • •

1815 OFFER OF PROOF OF OTHER LICENSES

To supplement the proof already in the record concerning other licenses outstanding, Hazeltine offers to prove the following license agreements by offering copies of the actual agreements and modifying letters in evidence:

(1) MAGNAVOX

Entered into as of October 1, 1959. The modifying letters are already in record as PX 52-55. Covers only one patent (patent in suit) for monochrome use at a royalty of 50% of that stated in the form for the group.

(2) SYLVANIA

Entered into as of January 1, 1959. Covers only single patent for monochrome use at royalty of 50% of that stated in the form for the group, and all patents for color use. Overall maximum annual royalty of $200,000.00 during 3-year renewal period; $150,000.00 annual maximum during initial 5-year term.

(3) WARWICK (Sears)

Entered into as of October 1, 1957. Originally package license but modified by letter of February 2, 1960 to
1816 cover only two monochrome patents at royalty of 80% of royalty stated in the form for the group; and further modified by letter of July 5, 1960 to cover only one monochrome patent at 50% of royalty stated in form. Also covers all patents for color use. By letter of November 19, 1964, license extended to December 31, 1966 and $200,000.00

annual maximum made applicable to the combined royalties on both the single monochrome patent and the group for color use.

(4) WESTINGHOUSE

Entered into as of July 1, 1958. Originally covered all patents, but modified by letter of October 9, 1959 to cover only single monochrome patent (No. 2,416,424) at royalty of 50% of rate stated in the form for the group; modified by letter of April 11, 1961 to delete patent No. 2,416,424 and to insert patent in suit.

(5) WELLS-GARDNER (Montgomery Ward)

Entered into as of July 1, 1957. Originally covered all patents for both monochrome and color, but as to monochrome it was modified by letter of June 22, 1961 to cover only single patent at a royalty of 50% of the rate stated in the form for the group.

(6) PACKARD-BELL

Entered into as of July 1, 1957. Originally covered
1817 all patents for both monochrome and color, but as to monochrome it was modified by letter of July 7, 1960 to include only one patent use at a royalty of 50% of that stated in the form for the group.

(7) CURTIS MATHES

Entered into as of January 1, 1960. Originally limited to single monochrome patent at royalty of 50% of that stated in form for the group. By modifying letter of March 27, 1961 expanded to include all patents for use in color television sets.

(8) SETCHELL CARLSON

Entered into as of July 1, 1957, (now terminated). Covers only one single patent for monochrome use (the patent in suit) at royalty of 50% of that stated in the form for the

group, and all patents for color use. Color license now in force (as of May 1, 1964) includes only six color patents at a royalty of $2.25 per chassis.

(9) GIANNINI CONTROL CORP.

Entered into as of July 1, 1961. Covered only single monochrome patent with royalty of 50% of rate stated in the form for the group.

(10) ADMIRAL

Entered into as of November 1, 1963. Limited to color use only and includes nine patents and one application at a royalty rate of 1.15% with a minimum of $100,000.00 and a maximum of $275,000.00 annually except that "until June 30, 1966 an annual maximum of $200,000.00 is applied."

3550. *Further Offers of Proof Made After Findings.*

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

417 OFFER OF PROOF ON MARKET SHARE AND DAMAGES

Hazeltine Research, Inc., by its attorneys, states that had it been permitted to do so, it would have proved, and hereby offers to prove, the following facts:

I. The economic and other conditions prevailing in the United Kingdom and Australia from 1959 through 1963 would have precluded any appreciable market penetration or profitable commercial operation in either country by an American manufacturer attempting to enter such markets and compete with locally manufactured sets by importing complete television and radio sets from the United States, particularly at the retail prices which would necessarily be charged in England and Australia for sets selling ex-
418 factory Chicago at the prices on which Zenith damages were computed. Zenith could not have gained anywhere near the percentage share of the United Kingdom or Australia markets claimed by the Zenith witnesses or assumed by the Court's award of damages. Instead, it is highly unlikely that Zenith could have achieved any measurable share of either market. Consequently, Zenith is entitled to no damages for lost profits in either the United Kingdom or Australia.

Hazeltine Research, Inc., if permitted to do so, would prove, by expert testimony, by testimony from businessmen and executives fully qualified by their experience in the United Kingdom and Australian markets to testify about factors existing in those markets, and by relevant documentary evidence, the following facts.

United Kingdom

A. The average retail prices which would have to have

been charged for average Zenith radio and television sets made in the United States and imported into the United Kingdom would necessarily have been much higher than the average retail prices prevailing in the United Kingdom during the period 1959 through 1963 and the price disparity by itself would have prevented Zenith from
419 gaining any identifiable share of the United Kingdom radio or television market. In fact, as pointed out below and in detail in the Ewing Affidavit, the average retail price of Zenith television sets would have been over 150% *more than* average retail prices of English made sets, and Mills, Zenith's own economic witness, admitted that even a 50% difference would prevent penetration. Mills deposition, pp. 55 and 62.

Further, during this period there was intensive price competition in the television market resulting from the market saturation which occurred in 1959. Production and sales volume declined sharply after 1959 and the decline continued to 1963. The television industry suffered drastically from excessive productive capacity, supply far outstripped demand, and average *retail* prices (excluding taxes) declined sharply to levels near or below Zenith's average ex-factory cost in Chicago.

Based on the ex-factory Chicago prices set forth in the Zenith damage exhibit, the retail price for the average Zenith television set if sold in England would have exceeded the average retail prices prevailing in the United Kingdom by 150% or more. The high price of the Zenith set would result from Zenith's high ex-factory prices, and the addition of shipping costs and import duties, the imposition of high purchase tax in the United Kingdom and other costs connected with the exporting from the United States to the United Kingdom. As a result, Zenith, would have been priced out of the market and would have
420 been able to make only an occasional luxury type sale.

B. Average disposable income is substantially less in the United Kingdom than in the United States. For this additional reason, it is highly unlikely that sales in appreciable quantities could have been made by Zenith at the price levels at which it would have been required to sell.

C. The largest single method by which television sets are acquired by United Kingdom consumers is the rental of such sets, an outlet which as a practical matter would have been foreclosed to Zenith. In the United States, television rental is almost non-existent, but in the United Kingdom, by 1959 more consumers acquired television by the rental method than by any other way, and the rental market continued to grow throughout the relevant period. Companies engaged in the television rental business would not have purchased their inventories from Zenith, because of its extremely high landed prices in the United Kingdom, lack of reputation in the United Kingdom, doubts about repair and service performance and other reasons stemming from the nature of the television rental market in that country. Part of the rental market was completely closed to Zenith because of the integrated operations of some manufacturer-rental companies. In addition, the remaining 421 rental companies which did not manufacture their own sets would not have purchased imported television sets that would operate only after expensive and difficult technical modifications, when substantially less expensive sets requiring no modification and adequate supplies of spare parts were readily available from established and reliable domestic manufacturers, in sizes and styles known to be preferred by the British consumer.

D. Television sets manufactured for the American market would not function properly in the United Kingdom because of the difference in technical requirements governing television transmission and reception, thereby affect-

ing set construction, and because of the different line voltages in the respective countries. Conversion of standard American sets to United Kingdom requirements would have been both expensive and for the most part impractical. Numerous technical changes are required, particularly for reception of the 405-line television most widely used in the United Kingdom. Without such conversion there would be no market in the United Kingdom for such sets.

Radio sets, while not requiring as many changes as television, would need to be adapted for the higher line voltages used in the United Kingdom and some would require modification to receive long wave transmission.

422 E. Zenith's penetration of the United Kingdom market would have been further handicapped by its lack of brand name acceptance in that market. Substantial advertising expenditures would have been required to establish consumer acceptance of the Zenith brand name, and any profits obtainable during the period of market entry would be reduced accordingly.

F. Additional large investments in repair and service depots and spare part inventories would be required from any foreign manufacturer seeking to enter the United Kingdom market. Without making such arrangements, or investing the necessary assets, it is unlikely that the newcomer could have successfully marketed on a commercial scale.

G. A purchase tax is imposed in the United Kingdom on all television sets and radios sold in that country. The tax is imposed upon the wholesale price (i.e., the price to the retailer) which, in the case of an imported set, would include the cost of transportation, duty, and other importing costs. The rates applicable during the indicated periods and the statutory authorities are set out below:

423

Period	*Rate*	*Statutory Authority*
16 April 1958 to 7 April 1959	60%	Finance Act, 1958, § 1 and First Schedule, proviso to par. 1(1) and Second Schedule, Group 18.
8 April 1959 to 25 July 1961	50%	Finance Act 1959, § 15(1)
26 July 1961 to 9 April 1962	55%	Finance Act, 1961 § 9(1) and (3). Surcharge on Revenue Duties Order (S.I. 1961 No. 1388)
10 April 1962 to 31 December 1962	45%	Finance Act, 1962 § 1(1) and § 6(1)(a)
1 January 1963 to 31 December 1963 and beyond	25%	Purchase Tax (No. 7) Order 1962 (S.I. 1962 No. 2841) and Purchase Tax Act, 1963

H. A duty of 20% was applicable to radio and television sets imported from the United States during the period covered by this case. The duty applied to the landed cost, which includes all transportation cost at the port of entry, all commissions, broker's fees and other costs incidental to the sale and delivery of the goods to the place of importation. In addition, where the goods are imported by a sole concessionaire or associated company and the importer makes expenditures for purposes of creating a market
424 for the goods, such as advertising, sales promotion and the maintenance of a sales staff, the Customs and Excise branch of the English government frequently imposes an up-lift which increases the value of the goods for duty purposes. This was done in the case of Zenith radios imported by Zenith's English distributor. In addition, the

value of the goods for duty purposes would include the cost of any service or processing performed upon the goods prior to their being imported even though the cost of such service or processing was separately paid by the importer.

I. Various other economic factors present in the United Kingdom market combined with the foregoing factors establish that there is no correlation between the experience of a company in the United States market and its expected performance in the United Kingdom. In fact, the economic factors which would apply to an attempt by Zenith to enter the United Kingdom market with completed television sets exported from the United States would have rendered such an attempt unsuccessful. No measurable market share would have been achieved, and it is highly unlikely that any profitable commercial operations could have occurred.

425 **Australia**

A. The Australian market for television in the relevant period similarly was "saturated," in that supply far exceeded demand. Excess manufacturing capacity led to extensive and severe price competition, forcing retail prices to levels that were unprofitable to manufacturers and retailers alike. Numerous manufacturers and retailers were driven out of business during this period due to depressed market conditions. Other manufacturers operated unprofitably during this period. Under such circumstances it would have been impossible for any importer of full-size completed television sets profitably to penetrate the Australian market during this 1959-1963 period.

B. The Australian sales tax was a further deterrent to the importation of radio and television sets. While the rate applicable to radio and television sets during the relevant period was the same (25%) for both imported and locally made radio and television receivers, the tax imposed a heavier burden on imported goods because of the assessment

formula required by the sales tax acts. The assessment formula had the effect of increasing the value of the imported goods for purposes of applying the tax rate. The sales tax, which must be paid at the time of importation, would have been levied on a value determined according to the following formula: (1) If the importation was by
426 a registered distributor who sold to retailers, the value would be his price to the retailer which would necessarily include the duty, transportation, and a profit to him; (2) If the importation was by a retailer or an unregistered distributor, the value would be 120% of the sum of the following: the value for duty (current domestic value or the selling price in the country of origin, whichever is greater, plus cost of packing, inland freight and F.O.B. charges, excluding cost of picture tube, ocean freight and insurance) plus all duties including primage.

C. Television sets manufactured for the American market would not function properly in Australia because of the difference in technical requirements governing television transmission and reception, thereby affecting set construction, and because of the different line voltages in the respective countries. Conversion of standard American sets so that they would operate properly in Australia would involve prohibitive expense if performed on the limited volume of approximately 5,000 to 10,000 sets per year. Sets not so converted would face an unsurmountable handicap in competing with Australian-made television sets.

427 D. The Zenith brand name is not widely known in Australia, and heavy advertising expenditures would be necessary before consumer acceptance could have been obtained by Zenith. Such expenditures, combined with the import duties, taxes, conversion costs and other costs of exporting, would further limit Zenith's ability to import into Australia.

E. Because of the great distances between the large

metropolitan areas of Australia any importer attempting to sell in the entire market area must have a branch or distributor outlet in each state of the Commonwealth. This cost would have to be borne by the manufacturer or else reflected in a higher retail price.

F. These same distance factors, plus the lack of brand acceptance, would have required the building of substantial spare parts, inventories and the establishment of service centers, all at considerable expense, in order to overcome consumer resistance to purchasing television sets that might require maintenance and repair during their useable life. Established Australian manufacturers must provide these services, and any manufacturer or importer seek-
428 ing to penetrate the Australian market could not do less.

G. Various other economic factors present in the Australian market, combined with the foregoing factors, establish that there is no correlation between the experience of a company in the United States market and its expected performance in Australia. In fact, the economic factors that would apply to an attempt by Zenith to enter the Australian market with full-size completed television sets and radios exported from the United States would have rendered such an attempt unsuccessful. No measurable market share would have been achieved, and it is highly unlikely that any profitable commercial operations could have occurred.

II. It is and has been plaintiff's position that the so-called British patent pool of radio and television receiver patents did not prevent Zenith from importing its products into the United Kingdom during the four-year period prior to the filing of the counter-claim herein. By the affidavit of E. P. Dale-Harris plaintiff offers further evidence that
429 the pool in the United Kingdom did not during the four-year period in issue have a policy of excluding imports. In addition, plaintiff offers to prove that the so-

called British patent pool did not even exist after June 30, 1964 and that in spite of that fact, Zenith has either not attempted to penetrate the English television market or if it has attempted to do so, has not been able to obtain any measurable share of that market. Evidence of what has occurred in the period of 17 months since the expiration of the British patent pool, as to which period there can be no claim of exclusion even under Zenith's theory, provides compelling evidence that either Zenith was not interested in the United Kingdom television market or unable because of economic factors to penetrate that market.

III. By reason of the high landed cost of radio sets in the United Kingdom and by reason of the high advertising, promotional and distributional costs which would be incurred, Zenith Radio Corporation had no intention of selling radios in the United Kingdom except on a limited commercial basis, to those few consumers who would pay extremely high prices for Zenith sets considered to be
430 an unusual and differentiated product. That Zenith recognized that its high prices gave it only a limited market is shown by its early correspondence with its United Kingdom distributor, where it cautioned him against going "hog-wild on advertising" and against being too "ambitious" on his agency's program, "particularly in the face of a limited market, which the report indicates can be achieved at its very best, because of the unfavorable price factor" (Plaintiff's London deposition exhibit 60, pages 505-06). Other illustrative examples of such correspondence are the letters at pages 484 and 491 of Plaintiff's London deposition exhibit 60, all of which were identified at the deposition of Adam R. Ramsay and are a part of this offer of proof.

IV. Zenith had no intention or desire to sell the type of television sets which were commercially marketable in the

United Kingdom during the alleged damage period as shown by the following facts:

A. A standard United States television set is different technically from those in use in the United Kingdom during the period from 1959 to 1963 and even today. Among other things, there is a substantial difference in the number
431 of scanning lines in the picture transmission in the two countries. The United States system employs 525 lines. The British system during the four-year period involved here employed 405 lines. A large part of the rest of the world, including much of the continent of Europe, used a 625-line system. The United Kingdom recently adopted a 625-line system for one of its three channels, but that channel (BBC-2) did not commence regular broadcasting until 1964. There are a number of other important technical differences which would make a standard United States television set, without substantial modification, unuseable in the United Kingdom, but the scanning line difference is used here for convenient illustration.

B. From the time United Mercantile Company (Adam Ramsay, owner) was appointed by Zenith Radio Corporation as its distributor, and thereafter from about January 1, 1960 when it was appointed by Zenith Sales Corporation as its distributor, there was never, in fact, any interest on Zenith's part in selling television sets which would receive the 405-line transmission used in the United Kingdom.

C. From the beginning of such distributorship, it was the plan of Zenith Radio Corporation, and thereafter
432 of Zenith Sales Corporation, to sell television sets in the United Kingdom only when and if the British authorities would adopt the 625-line system, known as the "C.C.I.R. system," used on the continent and in most of the world.

D. At no time did Zenith Radio Corporation, or Zenith Sales Corporation, ever send to the United Kingdom a set which was adopted to the 405-line system, nor were any conversion instructions or kits ever sent for the conversion of the United States 525-line set to the 405-line set.

E. In 1959 and even earlier, there was speculation in the trade in the United Kingdom that an expected new television channel of the BBC would employ 625-line transmission instead of the 405-line transmission then used by the BBC and the commercial channel in operation. In 1960, the government of the United Kingdom set up a committee which was known as the Pilkington Committee. Among other things, this Committee studied television broadcasting in the United Kingdom. It was widely felt and reported in the press that the Pilkington Committee would recommend the adoption of the 625-line transmission 433 for the new BBC channel and possibly the conversion of the existing 405-line transmission to 625-line transmission. The report of the Pilkington Committee which was made in July, 1962 did, in fact, recommend the use of a 625-line transmission system for the new channel, but the question of conversion of the existing 405-line channel was left open. While the report of the Pilkington Committee was made public in 1962, full scale operation of the second channel (BBC-2) did not commence until 1964.

F. Adam Ramsay, owner and Managing Director of United Mercantile Company, the English distributor of Zenith products, repeated on numerous occasions announcements to the press and to dealers and prospective dealers that Zenith television sets receiving 625-line transmissions only would be on the market in the United Kingdom when and if regular broadcast on a 625-line basis were begun. Illustrative newspaper and trade journal articles reporting such announcements were marked at the deposition of Adam Ramsay as Plaintiff's London deposition exhibits

37, 38, 54, 55, 56, 57 and 58, copies of which are filed with the original executed copy of said deposition in the
434 files of this Court. Also marked at the Ramsay deposition as Plaintiff's London deposition exhibits 47 G and 47 M were copies of actual price lists put out by United Mercantile containing statements to the effect that Zenith television sets would not be available until the 625-line transmission began.

G. Beginning in 1961 and continuing in 1962, there was correspondence between United Mercantile Company and Zenith Sales Corporation dealing with the conversion and other technical matters relating to the possibility of United Mercantile introducing Zenith television sets in the United Kingdom when the 625-line transmission came into operation. In addition, in 1962, Zenith Sales Corporation sent over to United Mercantile Company a number of television sets which had been adapted or were intended to be adapted to receive 625-line transmission for purposes of display and future sale in London. None of this correspondence related to conversion of a United States set to receive 405-line transmission and Ramsay never received a Zenith set which would receive 405-line transmission and did not convert any sets to receive 405-line transmission during the damage period.

H. Even after the commercial broadcast of 625-line transmission began, there was no market for a televi-
435 sion set receiving only this transmission, and to the present time the only television sets which have any market in England are those which will receive the 405-line transmission or both the 625-line transmission and 405-line transmission because the 405-line transmission is still used by the BBC-1 and ITV channels, the two principal television channels in England. The third channel, BBC-2, which broadcasts the 625-line transmission, is on the air

only for limited periods during the day and in less than all of England.

I. In fact, the only television set which Zenith Radio Corporation was ever prepared to supply, and the only one which Zenith Sales Corporation was ready to sell and which United Mercantile Company was ready to market was the 625-line set which has never had a market in England, and none of said companies has ever been prepared to or interested in selling a set which will receive only 405-line transmission, or a set which will receive both the 405 and 625-line transmission.

J. While conversion from the 525 (American) system to the new and less used 625-line British system is technically possible although economically impractical under United Kingdom marketing conditions, conversion
436 from the American system to the old and primarily used 405-line system is not practical either technically or economically. The reason Zenith never sent conversion instructions or conversion kits to convert a 525-line United States-made set to the 405 English system and the reason that Zenith's English distributor has converted only one such set for his personal use (and that being long after the damage period in this case) are apparent from the facts concerning the various changes which would be required to convert a 525-line United States-made television for use in the United Kingdom to receive the 405-line transmission, as outlined in plaintiff's previous offer of proof filed with its motion to re-open the proof.

K. Adam Ramsay, the owner and manager of United Mercantile Company, had no previous experience in the radio or television business. The company had no sales force other than Mr. Ramsay himself, one salesman who worked at the company's showroom at which retail sales were made, and two salesmen who worked as retail salesmen at Harrod's department store in London. No salesmen

traveled or called on dealers. There were no sales offices or warehouses in other areas of England. In short, United Mercantile Company was a small, virtually one-man operation designed to make only limited sales of very expensive merchandise either at its own small showroom or through specialty outlets such as Harrod's. That the distributor it selected had no experience in and was not equipped for the mass distribution of television sets is further evidence that Zenith had no interest in selling the 405-line English set when it entered that market in 1959 and that it was waiting to see whether a change would be made to 625 lines before it attempted to penetrate the television market.

437

V. Plaintiff's position has been and is that it is improper to project domestic market share into a foreign country to estimate the market share which could be achieved in that foreign country and plaintiff's position has been and is that both the Zenith original claim of damages as contained in its Exhibit 218 and the Court's award of damages are improper. However, the Court's error in this regard is compounded by its use of Zenith's United States market share during the period from June 1, 1959 through June 1, 1963 because that market share was based on a fully developed and mature market in which Zenith had been an active competitor since late 1948 and even earlier in the radio business. The Court recognized and found that the damages had to be calculated on the basis of initially entering the markets in England and Australia after the beginning of the alleged damage period and could not be calculated on the basis of Zenith's having an established market in those countries at the start of the damage period.

While we contend that it was error to project in any way the domestic market share and that the damages, if any,

should have been determined from an analysis of the economic and other factors present in the actual foreign markets involved, if any domestic market share could properly have been considered in the calculation of damages it should have been the share of the market obtained by Zenith in 438 its *first* four years in the television business in the United States. Plaintiff, therefore, offers to prove the percentages of the television market which Zenith obtained after first entering the United States television market which are as follows:

U. S. Factory Sales*

	Industry	Zenith	Percent Zenith** to Industry
1949	$ 574,209,000	$28,903,423	5.034%
1950	1,397,469,000	67,067,012	4.799
1951	944,029,000	48,122,142	5.098
1952	1,063,634,000	66,687,366	6.270

These figures should then have been adjusted by applying Zenith's contention that it could do 25% as well in the United Kingdom and 10% as well in Australia as it had done in the United States and by the finding of the Court that Zenith could expect no profits in the first year of its operations in those countries, only 50% of its expected profits in the second year, 75% in the third and 100% in the fourth.

---

* Source: Zenith's Answer to Plaintiff's Interrogatory No. 13, p. 1. *Radio Corporation of America* v. *The Rauland Corporation and Zenith Radio Corporation,* Civil Action No. 48 C 1818 (N.D. Illinois).

** It should be noted that the percentages indicated are of sales expressed in dollars. The percentages and other figures in Defendant's exhibit 218 are on the basis of units sold and not dollar sales. On the assumption that Zenith sets are sold at higher than average prices (as asserted by its president) the actual Zenith market share in terms of *units* sold in the indicated years was necessarily lower than the percentages shown.

While plaintiff does not take the position that either the estimated market share or profit determined in this manner 439 could have been obtained by Zenith or should have been the basis of the calculation of damages, it does take the position that if the method and formula used by the Court was proper, that method and formula should have been applied to Zenith's first four years of experience in the television market in the United States and not to a period 10 years later when it had a fully established market share.

VI. In connection with the issue of whether Zenith Sales Corporation is an indispensable party to this action, plaintiff offers to prove, in addition to the matters set forth in the affidavit in support of its Motion to Dismiss on this issue, the following facts:

A. Zenith Sales Corporation from and after January 1, 1960 was the purchaser and reseller of Zenith brand products which were exported from the United States to the United Kingdom. Starting on January 1, 1960, Zenith Radio Corporation, the defendant and counter-claimant in this case, was merely the manufacturer of Zenith brand goods being exported to the United Kingdom by Zenith Sales Corporation.

440 B. Effective January 1, 1960, the contract for the distribution of Zenith brand products in the United Kingdom was between Zenith Sales Corporation as seller and United Mercantile Company as distributor. A copy of the contract effective January 1, 1960 is attached hereto and made a part of this offer of proof.

C. Under date of January 7, 1960, Samuel Kaplan, Executive Vice President and Treasurer of Zenith Radio Corporation, stated on the form 8-K for the month of December, 1959, filed with the Securities & Exchange Commission by and on behalf of Zenith Radio Corporation that:

"A new, wholly-owned subsidiary of Registrant, Zenith Sales Corporation, was incorporated December 14, 1959, to perform the marketing functions of Registrant for Zenith television receivers, radio receivers, phonographs and Stereophonic hi-fidelity instruments in the United States and abroad. Hearing aids, military, industrial, and non-consumer electronic products will continue to be marketed through Registrant.

"Zenith Sales Corporation will be responsible for sales distribution, advertising, sales promotion, and market research. Parts and accessories and service departments will also become operating divisions of the new sales company.

"This corporation will begin to function January 1, 1960."

441 VII. In support of the foregoing offers of proof, the following are submitted:

United Kingdom

A. The affidavits of the following persons, copies of which are filed with and made a part of these offers of proof:

1. John Sinclair Ewing
2. B. T. Reilly
3. Thomas Ludlow
4. John Carter
5. James Thomson Masterton
6. Charles A. White
7. S. E. Allchurch
8. W. J. C. Chapple
9. E. P. Dale-Harris
10. Alan Alfred Packer

B. The indicated pages of the following depositions, the original executed copies of which are in the Court file of this case:

1. ADAM R. RAMSAY, the following:

	From				Through			
	line	24	of page	28	line	2	of page	29
	"	13	" "	32	"	6	" "	33
	"	15	" "	37	"	25	" "	37
	"	13	" "	50	"	3	" "	55
	"	17	" "	57	"	20	" "	58
	"	12	" "	65	"	27	" "	65
	"	17	" "	66	"	10	" "	67
	"	15	" "	68	"	20	" "	71
442	"	18	" "	72	"	23	" "	75
	"	6	" "	106	"	2	" "	107
	"	1	" "	110	"	6	" "	122
	"	16	" "	127	"	19	" "	136
	"	11	" "	138	"	16	" "	138
	"	1	" "	155	"	23	" "	155
	"	1	" "	164	"	12	" "	166
	"	11	" "	170	"	7	" "	171
	"	24	" "	176	"	9	" "	177
	"	10	" "	183	"	16	" "	184
	"	18	" "	185	"	27	" "	187
	"	14	" "	188	"	10	" "	191
	"	2	" "	192	"	24	" "	194
	"	3	" "	204	"	26	" "	206
	"	24	" "	208	"	26	" "	208
	"	23	" "	212	"	24	" "	213
	"	2	" "	214	"	9	" "	216
	"	9	" "	218	"	13	" "	219
	"	19	" "	233	"	27	" "	236
	"	7	" "	242	"	13	" "	243
	"	5	" "	246	"	10	" "	247
	"	1	" "	252	"	26	" "	253
	"	21	" "	301	"	22	" "	301
	"	25	" "	301	"	10	" "	302

443 2. WILLIAM GUNDRY MILLS, in addition to those parts already read at a previous hearing, the following:

From				Through			
line	19	of page	15	line	6	of page	18
"	15	" "	22	"	1	" "	23
"	16	" "	53	"	8	" "	66
"	11	" "	71	"	15	" "	82
"	9	" "	84	"	8	" "	97
"	11	" "	124	"	26	" "	124
"	7	" "	138	"	15	" "	151
"	22	" "	158	"	26	" "	183
"	2	" "	198	"	5	" "	198

• • •

444 C. The Following deposition exhibits:

1. Plaintiff's London deposition exhibits Nos. 17, 18, 19, 20, 26 and 27, identified at the deposition of William Gundry Mills and filed with the original copy of said deposition in the files of this Court.

2. Plaintiff's London deposition exhibits Nos. 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, and 66, identified at the deposition of Adam R. Ramsay and filed with the original copy of said deposition contained in the files of this Court.

3. Zenith's London deposition exhibits Nos. 6, 9, 10, 12, and 13 identified at the deposition of William Gundry Mills and filed with the original copy of said deposition contained in the files of this Court.

4. Zenith's London deposition exhibit No. 27, identified at the deposition of Adam R. Ramsay and filed with the original copy of said deposition in the files of this Court.

• • •

445 **Australia**

A. The affidavits of the following persons, copies of which are filed with and made a part of these offers of proof:

1. John Sinclair Ewing
2. Sir Arthur Warner
3. James Inglis
4. Alfred Garraway
5. Arthur Walter Barrs
6. S. W. Goodwin
7. John Thorpe
8. Bede Solomons
9. Norman Levy
10. Gordon Wallace

Respectfully submitted,

HAZELTINE RESEARCH, INC.

By VICTOR P. KAYSER
One of its attorneys

IN THE UNITED STATES DISTRICT COURT

* * (Caption—59-C-1847) * *

AFFIDAVIT OF JOHN SINCLAIR EWING (UNITED KINGDOM)

State of California,
County of San Mateo. } ss:

John Sinclair Ewing, being first duly sworn on oath deposes and says that:

1. I am making this affidavit in connection with the case of *Hazeltine Research, Inc.* v. *Zenith Radio Corporation*, No. 59 C 1847, pending in the United States District Court for the Northern District of Illinois, and if I were called as a witness in that case I would testify to the facts and expert opinion set forth in this affidavit.

2. I am currently Senior Marketing Economist with Stanford Research Institute, Menlo Park, California. 458 This affidavit and any testimony given by me in this case, is given personally and not on behalf of the Stanford Research Institute nor is it in any way intended to reflect the views of Stanford Research Institute.

3. I was born in Canada in 1916. I was graduated with distinction from Bishops University, Lennoxville, Quebec in 1936, having achieved first class honors in history and English and the Chancellor's prize and the Lieutenant-Governor's Medal for History. I received a Master in Business Administration degree with Distinction from Harvard University in 1947 and a Doctor of Commercial Science degree from Harvard University in 1953.

4. From 1951 to 1953 I was a research associate at the Harvard Business School. From 1953 to 1954 I was Professor of Marketing, IPSOA, Torino, Italy. During 1954 and 1955, I was on the directing staff at the Administrative Staff College, Henley-on-Thames, England. From 1955 to

1956 I was Associate Professor of Marketing at the American Institute of Foreign Trade in Phoenix, Arizona. From 1957 to 1959, I was visiting Associate Professor of Marketing at the Graduate School of Business, Stanford University and also visiting Associate Professor of Marketing,
San Jose State College, San Jose, California; Profes-
459 sor of Marketing, Finnish Institute of Management,
Helsinki, Finland; and Professor of Marketing, Stanford International Program in Small Industry Management. In 1960 to 1961, I was visiting Associate Professor of International Trade and Marketing at the Stanford Business School and also Professor of Marketing at the Stanford International Program in Small Industry Management and Director and Professor of Marketing at the Stanford Management Seminar, Colombo, Ceylon. In 1961, I became Associate Professor of International Trade and Marketing at the Stanford Business School and continued as Director Professor of Marketing at the Stanford Management Seminar, Colombo, Ceylon and was Professor of Business Policy, Stanford/Teheran Executive Development Program, Teheran, Iran. In 1963 and 1964, I was Director and Professor of Marketing at the Stanford/Australian Institute of Management Executive Development Program, Sydney, Australia and Professor of Business policy, American University of Beirut Executive Development Program, Beirut, Lebanon in 1964. In 1954, 1959, 1961 and 1963, I was a visiting lecturer at the Centre d'Etudes Industrielles, Geneva, Switzerland.

5. In addition to teaching, I have worked in industry and as a consultant. From 1947 to 1950, I was a research
associate with the Business History Foundation of
460 New York, New York. The primary objective of this
Foundation was research into the history of the Standard Oil Company of New Jersey and its affiliated companies. As a research associate, my responsibility involved re-

search, direction of research and the authorship of a history of Imperial Oil Limited, Toronto, Canada. In 1956 and 1957, I was Director of the International Management Division of Harbridge House, Inc., an international research and education consulting organization. In 1959 and 1960, I was a visiting consultant with W. D. Scott & Co. Pty., Ltd. of Sidney, Australia. My work there involved consulting in the general management and marketing field with Australian and New Zealand companies and the development of and presentation of marketing management training programs for Australians and New Zealanders.

6. In addition to the above mentioned full time activities, I have done, and am doing, consulting work in various fields, including work with two advertising agencies, one in America and one in Australia, an extended period of research with Standard Oil Company of California and with a number of companies in Australia seeking to broaden their international markets. During the times I was in Australia in connection with the Stanford Australian
461 Institute of Management Executive Development Program, I organized and conducted in-company marketing training programs for Imperial Chemical Industries (ANZ) Ltd.

7. My work in England with the Administrative Staff College in 1954 and 1955 involved continuing association with senior and middle rank executives of British corporations and government departments for the purpose of gathering relevant materials to use in advanced management training programs. My particular area of interest was that of marketing and distribution of consumer goods in the British economy and I did research in this field. Since 1955, I have made additional visits to the United Kingdom in almost each year for the purpose of keeping current in British marketing trends.

8. I have collaborated with others in the writing of two

books, INTERNATIONAL BUSINESS MANAGEMENT, with Frank Meissner (Wadsworth Publishing Company, 1964), and BROADLOOMS AND BUSINESSMEN, a management history of Bigelow-Sanford Carpet Company, with N. P. Norton (Harvard Press, 1959).

9. I also contributed a chapter entitled "Wholesaling in Australia" in the book COMPARATIVE MARKETING edited by Robert Bartels (Richard D. Irwin, 1963). In addition, I have had published over a dozen articles in business
462 and scholarly journals such as the Harvard Business Review, The Journal of Marketing, The Stanford Business School Bulletin and Boston University's Business Review. Many of these articles deal with international marketing and foreign trade.

10. I am currently a member of the American Marketing Association, the Society for International Development, The Association for International Education in Business and the American Association of University Professors. I am an Editorial Advisor to The Journal of Marketing and Secretary of the Association for Education in International Business.

11. I was asked for my judgment on the following questions:

a. What factors should be taken into account in estimating the share of a particular foreign market that a United States radio and television manufacturer could reasonably expect to achieve by exporting United States made products into that foreign market?

b. Considering those factors and any other factors which may be relevant to the particular situation involved, what share, if any, could Zenith Radio Corporation have reasonably been expected to achieve with its United States made radio and television sets in the United Kingdom
463 during the period of May 22, 1959 through May 22, 1963?

12. I have reviewed some of the testimony and exhibits contained in the record of this case provided to me by counsel for Hazeltine Research, Inc. including the testimony of Messrs. Wright and Kaplan (including the new hearing on November 22, 1965) and the depositions of Messrs. Mills, Ramsay and Ribalta, the reports of the Economist Intelligence Unit (Zenith's Deposition Exhibits 9 through 13; Plaintiff's Deposition Exhibits 18 through 20, 26 and 27), the report prepared by the Economist Intelligence Unit for Zenith in 1959 (Zenith's Deposition Exhibit 6), the Annual Report of the British Radio Equipment Manufacturer's Association (BREMA) for the years 1958, 1959, 1960, 1961, 1962 and 1963, Defendant's Exhibit 218 and certain of the statistics contained in Defendant's Exhibit 216; and I have drawn on my own personal knowledge and experience.

13. For purposes of my analysis, I have assumed the following:

(a) Zenith manufactured the sets in question in the United States and exported them as finished products, except possibly for modifications necessary to make them technically usable in England.

464 (b). The prices for the Zenith products F.O.B. Chicago on an average product mix are as follows:

	Television	Radio
1959 (2d half)	148.73	35.24
1960	145.68	28.77
1961	144.16	26.59
1962	136.80	27.12
1963 (1st half)	128.38	27.59

(c). Zenith's products were of high quality.

14. Before listing and discussing the factors which are relevant and should be considered in attempting to determine expected market share which could be obtained in a

foreign market, it should be pointed out that there is no necessary relationship between the share of the market that a company has obtained in the United States and the share of the market that it could reasonably be expected to obtain in a foreign country. For example, I understand that Zenith, in this case, claims that it could have secured a share of the market in England which was 25 per cent of its share of the market in the United States. Its position is to the effect that if it obtained 20 per cent of the United States market, it should be able to obtain 5 per cent of the United Kingdom market. As a result, it claimed it could have
465 obtained a share of from 4 per cent to 6 per cent of the United Kingdom market. I find this assertion wrong for a number of reasons. First of all, apart from some factors peculiar to the United Kingdom, which I shall discuss later, prediction of market share with this kind of accuracy is impossible. It implies an automatic correlation between United States and foreign market share which does not exist.

15. There are a number of variables which directly or indirectly affect a company's market share in any given country and they have no necessary connection with its market share in the United States. Among them are the following:

A. The Country
   (1) The Political, Economic and Governmental Environment
      (a) Import-Export Controls
      (b) Government Control of Business
      (c) Labor Intensity and Cost
      (d) Industrial Relations
      (e) The Legal Environment and Restrictions
      (f) Taxes
      (g) Methods of Financing; Credit Terms
      (h) Methods of Doing Business in General

466 (2) The Competition
- (a) Size of Competitors and Their Financial Resources
- (b) Sophistication and/or Incompetence of Competitors
- (c) Number of Competitors
- (d) Size and Value of the Total Market
- (e) Degree of Market Saturation

(3) The Consumer
- (a) Habits and Tastes
- (b) Social Customs
- (c) Disposable Income

B. The Company

(1) Management and Personnel Qualifications
- (a) Adaptability of U.S. Personnel
- (b) Availability of Competent People Abroad
- (c) Language and Communication Difficulties
- (d) Initiative, Resourcefulness, and Aggressiveness of Management
- (e) Management's propensity for risk

(2) General Factors
- (a) Degree of Adjustment Necessary to Meet the Tastes of Consumers in Each of the Countries Entered.
- (b) Sales Force Development; Distribution Networks Available

467
- (c) Advertising Weight and Character; Promotional Programs
- (d) Pricing; Credit Terms
- (e) Suitability of the U.S. Product Line in the Foreign Market; Product Mix
- (f) Profitability in the Foreign Market
- (g) Long Term Versus Short Term Profit Goals
- (h) Amount of Investment Necessary

(i) Company Philosophy Regarding International Commitments
(j) Diversification Emphasis
(k) Company's Method of Expansion (Internal Growth Versus Acquisition)
(l) Degree of Completeness of Foreign Production Facilities
(m) Amount of Time in the Country
(n) Amount of Company International Experience
(o) Cost and Sources of Supplies and Raw Materials

16. Research on this question among American companies having international operations has revealed that there is no correlation between their American market share and their foreign market share. In a few instances,

United States market share and market share in one or
468 two countries are almost the same but these limited

instances are not correlations but statistical accidents. Indeed, there are some striking examples of cases where the market shares of American companies are less in the United States than in some other countries, which is quite the opposite of the relationship claimed by Zenith. The Hoover Company, for instance, in 1962 had 6.5% of the vacuum cleaner market in this country; in the United Kingdom its market share was 56 per cent. American Motors in 1964 had 7 per cent of the American automatic refrigeration market and 7 per cent of that in the United Kingdom, but 25 per cent of the Australian market. A well-known American pharmaceutical manufacturer, had a market share for anti-histamines in 1964 of 27.3 per cent in the United States and 42.4 per cent in Australia. The Campbell Soup Company, which by far has the largest share of the American wet soup market (approximately

90%), beginning in 1959, attempted to penetrate the English wet soup market and has suffered substantial losses. On the other hand, the H. J. Heinz Company, which has a substantially smaller share of the American wet soup market (5%) and which has been in the English and
469 Australian markets for many years, has been very successful in those countries.

17. Accordingly, I would say that the kind of extension from the American market share to an expected English market share made by Zenith is nothing more than a guess, and under the circumstances here, not an accurate or reliable guess. Indeed, no one could state with that kind of purported accuracy what Zenith's market share in the United Kingdom would have been during the period in question.

18. While, however, no one could say with accuracy what Zenith's market share would have been, one can state with accuracy what its share would not have been, and that is that its share would not have been any thing near 5 per cent of the television market either as a constant throughout the period or as an average over the entire period or even at the end of the period. Indeed, based on my experience, education and knowledge, it is my judgment and opinion that Zenith, entering the market for the first time in June of 1959 with prices as indicated above could not have achieved any thing other than a nominal share of the English television market resulting from an occasional
470 sale of very high-priced merchandise. The factors which, both alone and in combination with each other, lead inescapably to this conclusion are set out below.

19. One important variable which bears directly upon the problem being considered here is the difference in disposable incomes in the United Kingdom and the United States. The market for a television set or radio set obviously lies with the consumers and the consumers in the

United Kingdom differ from consumers in the United States in a number of ways. One of these differences which is measurable is income. The per capita income in the United Kingdom is significantly lower than it is in this country and the disposable income after taxes is also significantly lower in the United Kingdom. The chart comparing the Per Capita Personal Income and Per Capita Disposable Income in the United States and the United Kingdom is attached hereto as Exhibit A. In addition, the British consumer not only has less money than his American counterpart, but he has to pay more for many of the things he buys, particularly consumer durable goods. The difference may sometimes be a reflection of higher production cost, but is most often the result of a purchase tax which has
471 been as high as 60% and is now 25% of the wholesale price of those products to which it applies.

20. In addition to these measurable differences, there is the important difference in the taste of the British consumer as a group. The British consumers drink tea where we drink coffee; they like warm beer while we like it cold and so on. They are more conservative and less apt to change their habits, although some of the conservativeness has grown less marked in recent years. Thus, the requirements for cabinet design of those who purchase television sets and to the lesser extent of those who rent television sets—many more people rent than buy—are different from those of Americans. Their concept of style may be different and products which sell well in the United States will not necessarily sell well in the United Kingdom, not because they do not function well, but because their appearance does not appeal to the British consumer. A good example of this is the fact that the British prefer wooden television cabinets and almost all of the sets sold in England are wooden, with the exception that a few are plastic. On the other hand, a large percentage of television sets sold in the United

472 States have metal cabinets, and this is true with the Zenith sets, particularly the less expensive ones. Part of the British consumer's preference may well be a fear that metal cabinets are not safe, particularly with British voltage of 220-250, but part of it is also a matter of appearance and any United States manufacturer attempting to market metal cabinets in the United Kingdom would encounter customer resistance on this score.

21. Another important factor which would adversely affect Zenith is the lack of familiarity of its name among various consumers. Prior to 1959 it did not market in England and although some of its advertising undoubtedly was carried into the United Kingdom in American magazines, those magazines have very limited circulation in the United Kingdom and that limited circulation is, in turn, largely to upper income consumers in the social-economic groups which have been the last in the United Kingdom to become the buyers of television sets. A new brand name such as Zenith would necessarily be at a disadvantage coming into the United Kingdom market because of the natural consumer reluctance to trust an unknown for after-sales
473 service. Any reputation for quality which Zenith might have in the United States is unknown in the United Kingdom, and a reputation for quality in the United Kingdom could be achieved only by a very heavy advertising effort and after several years' sales in the United Kingdom giving the consumer experience with the Zenith product. Leaving aside for the moment the impact of television rental which is so important in the United Kingdom, the British consumer who is interested in purchasing a television set is concerned with whether the set works well, and if it breaks down, how to obtain service quickly and efficiently. With a long-standing British manufacturer, the British consumer knows what he can expect both in the way of quality and in after-sales service. However, with a new brand entering

the market and particularly a brand which is being manufactured in a foreign country, the British consumer would have a natural feeling of uncertainty as to the availability of spare parts and the availability of adequate after-sales service. The apprehension of the British consumer could possibly be overcome in time, but certainly not in two, three or even four years. Indeed, it could be accomplished only over an extended period of time and with a substantial advertising and promotional expenditure.

474 22. Another factor which Zenith could only overcome with considerable sums of advertising expenditure, and probably then only over an extended period of time, is the preference which the British people tend to have for British-made products for reasons having to do with the conviction that "British-made" equates with high quality. While some people, such as the Spaniards, have historically preferred imported goods, the British people have historically had a tendency to prefer British-made products.

23. The amount expended for additional advertising and promotional activities in an attempt to offset these disadvantages would presumably have had to be reflected in the price per set, raising the prices thus even higher and adding to the unlikelihood that the sets could be sold.

24. Probably the most important factor and one which alone would have precluded Zenith from obtaining any significant share of the market, is price. As stated above, the average price of an average mix of products F.O.B.

475 Chicago for Zenith television sets is as follows:

	Television
1959 (2d half)	148.73
1960	145.68
1961	144.16
1962	136.80
1963 (1st half)	128.38

25. Two prices are important: the price to the retailer and the price the retailer charges the consumer. To arrive at the price to the retailer (i.e., the wholesale price), a number of things must be added to the ex-factory price; they include the cost of inland freight in the United States, ocean freight, inland freight in the United Kingdom, insurance, import duties, importation charges for documentation usually done by brokers, bonded warehousing, conversion costs where applicable, and profit of the distributor. To arrive at the retail price under the system used in the United Kingdom, there would have to be added a mark-up equivalent to 30 or 33⅓% of the retail price and a purchase tax, which in mid-year 1959 was 50% of the wholesale price.

26. A common practice in the import-export business is to price the products the importer sells by the use of a multiplier applied to the ex-factory price. The importer makes an analysis of the various costs involved and arrives at a multiplier which when applied to the ex-factory price will return his various direct costs and give him a mark-up sufficient to cover his overhead, selling expenses and a profit. A single multiplier can be used for a group of products or a separate multiplier can be worked out for each different product. However, common practice is to fix a multiplier for a group of products to which the various expenses apply at the same rates. The multiplier approach has the advantage of simplifying pricing and makes it unnecessary for the importer to go through detailed calculations for each product each time there is a factory price change. It can be useful to determine the wholesale price or the retail price, where the importer either fixes that price or suggests it.

476

27. The Ramsay deposition and exhibits show that Zenith's British distributor arrived at the ultimate retail price by applying a multiplier to the F.O.B. Chicago Factory price. He used a range of multipliers which went as

high as over 4 and the lowest multiplier mentioned by Zenith or the distributor was 3.2. A multiplier of 3.2 in
477 these circumstances, is probably somewhat lower and more conservative than that which would be expected to be used or which was actually used by the Zenith distributor on Zenith products. It is not uncommon for an importer to use a multiple of four, five or even six when arriving at the retail price of a product imported from the United States. Thus, the 3.2 multiplier is a minimum and can be safely used to calculate the price at which, under the most favorable circumstances to Zenith, its products would have been sold at retail in England beginning in 1959.

28. The multiplier works as follows: Assuming that the factory price is $100.00 and the multiplier is 3.2, the retail price is $320.00. Taking 1960 as an example, the first full year that it is assumed Zenith would be in the television market, the price of the average Zenith television set applying the 3.2 multiplier would break down as follows:

Retail Price with Purchase Tax	466.18 (3.2 times $145.68)
Purchase Tax	166.54
Retail List Price (Without Purchase Tax)	349.63
Price to Dealer (Without Purchase Tax)	233.09
Factory Price	145.68

478 29. The average retail price of a television set in the United Kingdom during 1960 was $138.41, excluding purchase tax (See Table attached hereto as Exhibit B). Adding the purchase tax (50% of the wholesale price), the price of the average United Kingdom made set to the ultimate consumer in England [redacted] 1960 was about $184.55. Thus the price to the consumer [redacted] average Zenith set (using the most conservative pri[redacted] multiplier) would have been over 2½ times or over $280.00 more than the

average United Kingdom made television sets. It should be remembered that this comparison is of average sets, i.e., average Zenith and average United Kingdom sets, and not a comparison of the bottom-of-the-line of United Kingdom sets with the top-of-the-line of Zenith sets.

30. A chart attached hereto as Exhibit C shows the actual average prices for the television sets made in the United Kingdom for each of the years in question (except 1963) as contrasted with the average Zenith prices based on the conservative pricing multiple and on a more realistic pricing multiple. Another chart, attached hereto as Exhibit D, shows the disparity between the average wholesale
479 prices in the United Kingdom in 1959 through 1962 and the average wholesale prices of the Zenith products under those multipliers.

31. While higher quality may command a price premium, it would certainly not command a price equivalent to over double the average price of United Kingdom television sets. Under the circumstances indicated here, it is inconceivable that Zenith could have reached a rate of sales of 60,000 sets annually, and it seems unlikely that it could have sold any thing other than a nominal number of such sets in the United Kingdom.

32. In addition to the great disparity in average prices, the statistics concerning the percentage of sets sold in the higher price brackets are also relevant here. The Table contained in page 163 of the Report of the Economist Intelligence Unit prepared especially for Zenith (Zenith Deposition Exhibit No. 6) shows that only 2% of the sets sold in England in 1958 were £75 ($210.00) or more (excluding purchase tax). The market, therefore, for a set which would retail at $349.63 (excluding purchase tax) would
480 obviously be very limited if it existed at all. Moreover, the trend in the percentage of sets selling at over $210.00 (2% in 1958) was downward. While it went up in

1955 from 5% to 7%, it steadily declined thereafter, falling from 6% in 1956, to 3% in 1957, to 2% in 1958. No figures are available from which to determine this percentage for the years after 1958, but all factors point to a continuation of this downward trend at least until 1963. Price generally was falling and price became more and more important to the British television purchaser. In 1961, the Economist Intelligence Unit reported in its semi-annual television report that the public was making price the primary consideration in buying a television set. (Plaintiff's Deposition Exhibit 18).

33. Since the average price of Zenith's television sets would have to be over double the average price for United Kingdom-made television sets and since there was only a very limited market for premium priced sets and Zenith's average prices would have been higher than the sets sold even in that limited market, the price factor alone would preclude any real commercial penetration of the television market by Zenith.

481 34. Another extremely important factor is the substantial down-turn in the sales of television sets in the United Kingdom in 1960. The production and turnover of television sets in the United Kingdom for the years 1959 through 1963 are set forth in the chart marked Exhibit E and attached to this affidavit. As can be seen from this chart, over 2.7 million television sets were sold in 1959 which was the peak year in television sales in the United Kingdom. In 1960, however, total sales fell off to 1.8 million and in 1961 they fell even further to 1.5 million.

35. The market had obviously reached a saturation point in 1959 and a number of other factors such as uncertainty as to transmission line changes contributed to a drastic drop in sales which had a serious impact on the marketing of television sets. Manufacturers' stocks were high, prices fell and many more companies and retailers turned to

rental. Summing up the year 1960, BREMA reported in its 1960 Annual Report presented on April, 1961 that:

"It had become evident to industry early in 1960 that the boom in television receiver sales, induced in the Autumn of 1958, by the removal of all hire purchase and rental controls and subsequently stimulated by further Government measures, had ended and, indeed,
482 that indications of a downward trend had been signalled during the last few months of 1959. The impact of the renewed hire purchase and rental controls on the radio and television industry was direct and severe. After April sales of television receivers turned sharply downward and the rate of growth of sales of radio receivers declined.

"Forward production schedules for television receivers already modified by individual manufacturers were cut back further in anticipation of lower levels of demand. Demand was, however, reduced more rapidly and to a greater extent than had been anticipated or could be compensated for by curtailment of production which cannot be cut-back suddenly in a modern mass production industry without very serious disruption. In consequence, total stocks of television receivers held by manufacturers and in the Trade rose to about 1,200,000 units by the end of August, before declining to about 1,000,000 units at the end of the year.

• • •

"The degree of household penetration for television receivers, together with several other special technical and market factors which affected both television and radio receiver development and sales, made the impact of the controls on these products considerably more severe than for other household durables, the market for which had also suffered. The dual effect of a high rate of purchase tax coupled with the hire purchase controls was emphasized and it was once again shown that these measures to restrict sales on the home market could not lead to increased exports of our products, but were likely to have the opposite effect." (p. 6)

36. In addition, there was a serious and significant reorganization of the television industry in the form of the consolidation of manufacturers. In spite of this, produc-
483 tive capacity was still approximately 3 million sets per annum while demand was neither expected to nor did exceed 2 million sets per annum in the next four years. See the Economist Intelligence Unit, Consumer Durables Television Report, p. 14 (7th issue, July 1961) (Plaintiff's deposition exhibit 18).

37. Old established and well-known companies were finding it difficult to sell their sets even with reduced prices. Profits on the manufacture of television either dropped or became losses. In short, the television market having shrunk by over one-third was in 1960, in no position for the favorable entry of a new brand. Any new brand name coming into the market at this time would have found it difficult to obtain substantial sales. And when it is assumed that the Zenith products would have had to come into the market at the prices contained in Defendant's Exhibit 218, the general conditions of the market were such that Zenith could not have reasonably expected to penetrate the United Kingdom television market.

38. Finally, the largest single method by which tele-
vision sets are acquired by United Kingdom consumers
484 —rental—is practically non-existent in the United States. This fact alone illustrates the impropriety of attempting to estimate expected market share in England on the basis of United States market experience. The rental of television sets had, by 1959, become the way in which people acquired television more than any other way available and rental continued to grow and its share of the total turnover of television sets in the United Kingdom continued to grow over the entire period in question here.

39. It is reliably estimated that as much as 70% of all the television sets disposed of in the United Kingdom in

1963 were on a rental basis. A survey conducted by the Economist Intelligence Unit and reported in its Durable Consumer Goods—Television Sets, Report No. 9, in July, 1962, showed that at that time 29% of the television sets then in use were rented and that 42% of the television sets obtained in the two-year period commencing April, 1960 were rented (Table 6) (Plaintiff's Deposition Exhibit 20).

40. The appeal of rental to the English consumer is quite logical. The lack of a substantial disposable income makes it difficult for a number of people to purchase
485 television sets outright. The owner of a television set takes the risk of obsolescence and during the period from 1959 through 1963 there was a serious concern among consumers about obsolescence. The expected change to 625 line transmission and the imminence of color telecasting tended to encourage rental since by renting, the consumer could easily have the newest model available and could upgrade without worrying about the problems of obsolescence or the requirement of a substantial investment for a new set.

41. It is unlikely that Zenith with its high-priced products could have penetrated any of the mass rental business. In the first place, most of the major rental companies either make their own television sets or are connected with manufacturers either by contract or stock ownership. For example, the Economist Intelligence Unit in its Durable Consumer Goods—Television Sets, Report No. 9 published in July, 1962 reported that three of the five main groups marketing television sets through retailers in the United Kingdom had set up or acquired holdings in rental or
486 relay companies in order to assure themselves of a share in the growing rental business, and the largest rental company manufactured its own sets and had a chain of retail rental shops. (Page 18) (Plaintiff's Deposition Exhibit 20).

42. Fancy frills or advanced exterior designs have had little appeal in the rental market. The rental market has been made up of the plain inexpensive sets which have low initial costs and are easy to repair. Again, it was reported by the Economist Intelligence Unit in 1962 that the industry's response to the public's increased inclination to rent had caused the industry to cut the trimmings from sets for the rental market. (Economist Intelligence Unit Durable Consumer Goods—Television Sets, Report No. 9, July, 1962, page 19) (Plaintiff's Deposition Exhibit 20).

43. In addition, there would be a natural reluctance on the part of rental companies to deal with a new manufacturer coming into the market, particularly a foreign manufacturer whose factories were thousands of miles away.

Rental companies require spare parts for repairs and
487 they require that such spares be available long after the particular model has been discontinued because the rental company must keep each set in operation for several years in order to make a profit. The newness and the remoteness of Zenith would, thus, be a deterrent to its obtaining entry into the rental market.

44. However, price would probably have been the most important barrier to Zenith in attempting to penetrate the rental market. As reported by the Economist Intelligence Unit in 1961, competition in the rental business was intense and rental rates were falling. (Economist Intelligence Unit Durable Consumer Goods—Television Sets, Report No. 7, July, 1961, page 16) (Plaintiff's Deposition Exhibit 18). Rental companies were seeking and have continued to seek sets at the lowest possible initial cost, and even with quantity discounts Zenith's prices could not have been competitive because of the combination of high factory prices and the necessary expenses of duty and shipping charges.

45. As a matter of simple marketing economics, a British

rental company would not be able to obtain a substantially higher weekly rental for a set simply because that set
488 was higher in quality than the average rented set. That is why the great bulk of sets which are rented in the United Kingdom are the cheaper, bottom-of-the-line sets. Higher priced and higher quality sets are available in the United Kingdom but they are not the sets which are rented. The renting consumer sees no practical advantage in having a higher quality set since service is guaranteed by the rental company. Thus if a renter can obtain a guaranteed television reception for a rental of $1.20 per week, he is not going to pay $2.40 simply to get a higher quality set.

46. It is unlikely, therefore, that Zenith would have been able to achieve any of the mass rental business enjoyed by the major rental companies, and this fact alone would have removed the largest single segment of the television market from Zenith's grasp.

47. In summary as to television, on the basis of my education, experience and knowledge, I conclude that Zenith could not have obtained either at once or over the four-year period or at the end of that period the share in the United Kingdom market claimed for its television sets;
489 nor could it have obtained a share of that market sufficient to justify the amended findings of the Court with respect to damages. I come to this conclusion because of the impossibility of demonstrating any automatic correlation between American market share and potential market share in other countries, because of the importance of the economic, sociological and other variables between the United States and the United Kingdom, and because of specific factors in the United Kingdom which would have been adverse to Zenith's attempted penetration of the United Kingdom television market with United States-made sets.

48. Generally, much of what was said with respect to television also applies with respect to radio sets. Price

would have been and apparently has been the most serious deterrent to Zenith's attempted penetration of the United Kingdom radio market. Zenith could expect to sell some specialty items such as its Trans-oceanic radio or clock radios before they were available generally in the United Kingdom, or fancy radio phonograph combinations in the few high-classed department stores primarily in London. But it could never expect to penetrate the mass radio market with products at the prices stated in Defendant's Exhibit 218.

490 49. The single most significant factor influencing the radio market in the United Kingdom and for that matter in many other countries, including the United States, was the introduction of the cheap transister sets coming primarily from Japan and in the case of the United Kingdom, from or through Hong Kong. Zenith, with its average F.O.B. Chicago price of from $27.00 to $35.00, could never have expected to compete with those products. While the influx of the cheap transister sets has tended to increase the total turnover of radio sets, it has also tended to pull down the price of domestic sets.

50. From the point of view of marketing economics in this particular case, I find little or no significant merit in the contention that having television sets to offer would have increased Zenith's share of the radio market in the United Kingdom. While some advantage might accrue to a company's radio business from television sales, it by no means automatically follows that having television to sell would increase radio sales, particularly here, where it

491 is unlikely that Zenith could have had any substantial television business in the United Kingdom because of the high prices at which its products would have had to sell. In addition, having television would not have overcome the most important deterrent to the mass sale of radios by Zenith in the United Kingdom which was price. Moreover,

there are a number of companies in the United Kingdom which have obtained a substantial market share in radios and radio gramophones which do not make or sell television sets, and the Japanese which have made such a significant penetration of the market have done so without offering television. Finally, in Spain, where Zenith television sets are available, Zenith's radio business was unsuccessful and was abandoned.

497

/s/ JOHN SINCLAIR EWING
John Sinclair Ewing

Signed and sworn to before me
this 8th day of December, 1965.

/s/ MARIA A. RED ELK
Notary Public.
Maria A. Red Elk

My Commission Expires November 23, 1968.

EXHIBIT "A" TO THE EWING AFFIDAVIT.

Year	Per Capita Personal Income United Kingdom*	Per Capita Personal Income United States**	Per Capita Disposable Income After Taxes United Kingdom*	Per Capita Disposable Income After Taxes United States**
1959	$1,000.15	$2,168.00	$ 916.32	$1,904.00
1960	$1,129.10	$2,221.00	$ 973.62	$1,936.00
1961	$1,206.39	$2,273.00	$1,030.33	$1,985.00
1962	$1,256.40	$2,370.00	$1,064.60	$2,060.00
1963	$1,315.81	$2,450.00	$1,119.05	$2,125.00

* The United Kingdom figures were obtained by dividing the relevant total income figures contained in Table 3 "personal income, expenditure and savings," p. 3 of "Central Statistical Office, Monthly Digest of Statistics, No. 233 May 1965" published by Her Majesty's Stationery Office, London, by the total population shown in Table 11 "Defacto or home population" at p. 12 of the same publication. The pounds were converted to American dollars by rounding the amount in pounds to the nearest hundredth and multiplying it by $2.80 (which was the average rate of exchange for the period).

** The United States figures were obtained from "Statistical Abstract of the United States 1965, National Guide to Sources 86th Edition" published by The United States Department of Commerce, Bureau of Census, p. 327, Table 449 "Per Capita Income and Product for Selected Items in Current & Constant (1954) Dollars: 1950-1964."

EXHIBIT B TO THE EWING AFFIDAVIT.

AVERAGE UNITED KINGDOM RETAIL TELEVISION PRICES.
(Excluding Purchase Tax)

Tube Size	1959 (2.801)*	1960 (2.810)*	1961 (2.813)*	1962 (2.804)*
14"	$116.95 (£41 15s 9d)			
Up to and including 17"		$136.29 (£48 10s)	$130.03 (£46 5s 6d)	$130.67 (£46 10s)
17"	$139.09 (£49 13s 6d)			
19"	None	$143.45 (£51 1s)	$139.38 (£49 12s)	$141.05 (£50 7s 6d)
21"	$174.72 (£62 8s)			
23"	None	$185.32 (£65 19s)	$176.47 (£62 16s)	$178.92 (£63 18s)
Other Tube Sizes		$167.34 (£59 11s)	$158.91 (£56 11s)	$153.93 (£54 19s 6d)
Weighted Averages (weighted by %)	$139.58	$138.41	$133.70	$144.76
	($116.95 @ 3%)	($136.29 @ 87%)	($130.03 @ 31%)	($130.67 @ 2%)
	(139.09 @ 91%)	(143.45 @ 4%)	(139.38 @ 57%)	(141.05 @ 87%)
	(174.72 @ 6%)	(185.32 @ 4%)	(176.47 @ 5%)	(178.92 @ 10%)
		(167.34 @ 4%)	(158.91 @ 7%)	(153.93 @ 1%)

NOTE: The 1959 prices are for table models only; the prices for the other years include all models. Statistics in this form are not available for 1963.

Source: Tables VIII and IX on page 18 of the BREMA Annual Report 1962, and Tables VI and VIII at pages 19 and 20 of BREMA Annual Report 1959.

* Based on November Exchange rates (average).

EXHIBIT C TO THE EWING AFFIDAVIT.

COMPARISON OF UNITED KINGDOM TELEVISION RETAIL PRICES AND INDICATED ZENITH PRICES.
(Including Purchase Tax)

Year	United Kingdom Average Price	Zenith Price with 3.2 Multiplier	Zenith Price with 3.7 Multiplier
1959	$126.11*	$475.96	$550.20
1960	124.35	469.13	539.03
1961	118.37	461.31	533.80
1962	126.61	437.76	506.16

Norm: The United Kingdom prices were taken from the BREMA Annual Reports (see Exhibit B to the Ewing Affidavit) and adding the purchase tax. The Zenith prices are based on the prices shown on Defendant's Exhibit 218.
For convenience, a purchase tax of 30% was used throughout, although the purchase tax was 55% during part of 1961 and 1962 and 45% during part of 1962.

* For 1959 only the United Kingdom price is for table model sets.

EXHIBIT D TO THE EWING AFFIDAVIT

COMPARISON OF UNITED KINGDOM TELEVISION WHOLESALE PRICES AND INDICATED ZENITH PRICES
(Excluding Purchase Tax)

Year	United Kingdom Average Prices	Zenith Price with 3.2 Multiplier	Zenith Price with 3.7 Multiplier
1959	(a) 94.86		
	(b) 94.84		
	(c) 96.05*	287.97	275.15
	(d) 97.71*		
1960	(a) 92.80		
	(b) 92.79		
	(c) 92.27	283.09	269.51
	(d) 96.89		
1961	(a) 90.73		
	(b) 89.65		
	(c) 89.13	280.66	268.70
	(d) 93.59		
1962	(a) 96.94		
	(b) 96.23		
	(c) 96.51	218.88	253.08
	(d) 101.23		

Norm: The wholesale prices for the United Kingdom were determined as follows:

(a) The total value of the Home Sales ex-factory shown in the Monthly Digest of Statistics, No. 214, October, 1963 (Defendant's Exhibit 216) was divided by the total number of home sales shown in the same source.

(b) The total value of home disposals ex-factory shown in the BREMA Annual Reports for 1960 and 1963 was divided by the total number of home disposals shown in the same sources.

(c) The average retail price taken from BREMA Annual Reports (shown on Exhibit B to the Ewing Affidavit) were reduced by 33⅓%, the discount given to retailers by some manufacturers.

(d) The average retail prices taken from BREMA Annual Reports (shown on Exhibit B to the Ewing Affidavit) were reduced by 30%, the discount given to retailers by the remainder of the manufacturers.

* For 1959 only the (c) and (d) prices are for table models only.

EXHIBIT B TO THE EWING AFFIDAVIT.

TELEVISION PRODUCTION AND SALES IN THE UNITED KINGDOM IN UNITS.

Year	Production	Home Sales	Export Sales
1959	2,968,200	2,718,600	24,000
1960	2,149,800	1,816,800	28,400
1961	1,956,400	1,508,400	44,400
1962	1,462,800	1,377,600	111,600
1963 (1st 6 months)	764,900	649,900	23,200

Source: Monthly Digest of Statistics, No. 214, October 1963, Table 78, p. 66 (Defendant's Exhibit 218).

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

503 AFFIDAVIT OF B. T. REILLY

B. T. Reilly, of Marsham Manor, Marsham Lane, Gerrards Cross, Buckinghamshire, England, being duly sworn, deposes and says that were he to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division in the case of *Hazeltine Research Inc.* v. *Zenith Radio Corporation*, he would testify as follows:

1. He is Sales Director of Radio & Allied Holdings Limited, a United Kingdom company whose office and place of business is located at Langley Park, Slough, Buck, England.

2. He was born in Wolverhampton, England, in 1924, attended a Roman Catholic public school and served in the Army during World War II, being released from the service in 1945. In 1951, after having held several different positions including two years with a tile company, he
504 joined Proctor and Gamble Company Limited an English company whose principal office is located in Newcastle-on-Tyne, England. In 1954 he was appointed District Sales Manager for Proctor and Gamble and he

served in that capacity until September 1960, when he left to become associated with Radio & Allied Industries Limited (herein called "Radio & Allied"). He has been engaged in promoting and supervising the sales distribution of radio and television equipment since that date. He is currently serving as a member of the Executive Council of The British Radio Equipment Manufacturers Association (otherwise referred to as "BREMA"), a trade association acting for and on behalf of the radio and television manufacturers in the United Kingdom.

3. Radio & Allied is engaged in the production and sale of radio and television receivers. In April, 1961 Radio & Allied was acquired by The General Electric Company Limited, a publicly held corporation with offices at 1 Stanhope Gate, London, England. Radio & Allied and its related corporations currently manufacture and distribute television receivers, transistor radios and radiograms, in the United Kingdom under the brand names of GEC, Sobel, McMichael and Master Radio.

4. Television and radio have been operating in England for many years. Radio has been operating in England since before the 1930's and has continued ever since. In 505 1936, the British Broadcasting Corporation began broadcasting certain types of television service to the population of the United Kingdom although at that time there were few television sets that were capable of receiving the projected picture. On May 12, 1937, the English people witnessed the first television broadcast outside the studios when the coronation procession of King George VI was shown. Television service was closed down in 1939 prior to the outbreak of World War II, but in 1946 television broadcasting was resumed. Television projection was handled solely by the British Broadcasting Corporation (otherwise referred to as the BBC) which was an instrumentality of the United Kingdom government. The

control by the government over the BBC was administered through the Postmaster General who was responsible for television and radio in the United Kingdom. The BBC continued to serve in this capacity as the sole media for television broadcasting until 1954 when the Independent Television Authority (otherwise referred to as ITV) was created. This was the first introduction of television in the United Kingdom with commercial advertisements since the BBC programs contained no advertisements. The ITV began licensing broadcasting stations throughout the United Kingdom. In 1959, both ITV and the BBC had broadcasting facilities either directly or under license in the major urban areas of the United Kingdom.

506 5. Television projection is based on a transmission of a series of still pictures or "frames" which replace each other in rapid sequence on the television screen in such a way to create an impression to the human eye of a continuously moving picture. Each frame appears on the screen by means of a thin beam of electrical particles which transverses the screen in horizontal lines until the whole picture is formed. The standards of reception as adopted in the United Kingdom in 1936 included the 405 line standard in that there were 405 of these horizontal lines in each frame. No universal line standards have been adopted throughout the world and this adoption of the 405 line standard in the United Kingdom differentiated from certain European standards and the United States standards. Consequently, television receivers made in the United Kingdom and those made in other foreign countries were not automatically interchangeable. Because of the different line standard in other countries and especially in certain countries of Europe, it was decided in 1960 by the United Kingdom government to establish a committee to review the problem of line standards and other technical developments in television in the United Kingdom. The

Pilkington Committee was appointed by the Postmaster General to review this question and make proposals for submission to Parliament on this subject. The proposals made by the Pilkington Committee in 1962 included a
507 recommendation that the 625 line standard adopted in many countries of Europe be adopted in the United Kingdom. Consequently, a new television station was established in London under the authority of the BBC with a 625 line standard which televised programs through BBC Channel 2. Currently and since 1962, the London metropolitan area has been capable of receiving three television channels referred to as BBC 1, BBC 2 and the ITV channel. Recently BBC 2 has been extended to the midlands and South Wales. In the immediate future it is expected to be available in the North of England, and by the end of 1965 it is expected that 50% of the population will be able to receive BBC 2, providing they have sets equipped to receive it.

6. Television production in the United Kingdom reached its height in 1959 when approximately 2,863,000 television receivers were produced, and disposals amounted to 2,776,000 sets. Sales in that year were at an all time high in the history of television. This was encouraged by the absence of credit restrictions or hire purchase controls which had been eliminated in October of 1958. Manufacturers' inventories were also at an all time high. However, market saturation began to develop and by the end of 1959, sales began to decline. Manufacturers became concerned that their market was turning into largely a replacement market, a condition which developed largely due to this
508 relatively complete market saturation. In April, 1960, credit restrictions were imposed requiring a 20% deposit for the purchase of a television set on a time basis and an advance deposit of three months rent was required in the case of rented television receivers. People

had also held back in purchasing television sets in this period because of the uncertainties as to the adoption of line standards which might result from the Pilkington Committee findings and also because of the uncertainties as to the development of color television in the United Kingdom. The resulting downturn in the market was such that the United Kingdom has never again achieved the production and sales volume that was present in 1959. The total home disposals dropped 35% in 1960 from their 1959 level. In 1961 the drop continued by another 11%. In 1962 the number of television receiver disposals hit its lowest level of the previous four years when it reached 1,378,000 sets. This resulted in a total home disposals in 1962 of less than one-half of those disposed of in 1959. One result of this decline was the severe economic impact which it had upon television manufacturers. The effects of this were as follows:

(a) severe price competition developed and price reduction followed.

(b) many manufacturers and retailers went into the rental market in an effort to unload excess inventories.

(c) it became extremely difficult for a new brand to obtain any portion of the television market.

509 (d) it would have been extremely difficult for a new brand of radio or television receivers to make arrangements with retailers and wholesalers for distribution.

For example, Magnovox, the American company, in late 1960 set up an English company to distribute its products in England. Starting with radios and radiograms but informing the trade that they would later bring in television, they attempted to penetrate the English market with a sales forces of from 10 to 12 experienced sales representatives.

Their efforts were unsuccessful, they soon stopped offering radios and radiograms, and never to my knowledge marketed any television. Profits of the English radio and television manufacturers during this period (1960-1963) declined and many had losses. For example, the published reports of Murphy Radio Limited, Ultra Radio and Television Limited and E. K. Cole Limited show losses as follows:

Year Ending	31 Mar. 1960	31 Mar. 1961	31 Mar. 1962
Ultra Radio and Television Limited ...	£19,703	£167,682	£385,684
Murphy Radio Limited		£152,201	
E. K. Cole Limited		£273,156	£746,000 (gross trading loss £22,960 (net) loss after subvention receipts).

and Radio and Allied's profits dropped in the following manner:

	Trading profit before tax
12 months ended 30th April 1959	£1,222,139
12 months ended 30th April 1960	£1,297,460
11 months ended 31st March 1961	£ 734,627
12 months ended 31st March 1962	£ 735,675

510 Several mergers and acquisitions followed, such as Thorn Electrical Industries Limited, acquired Ultra Electric Ltd.; The General Electric Company acquired Radio & Allied Industries Limited; Pye of Cambridge Limited acquired E. K. Cole Ltd.; Bush Radio Ltd. purchased Murphy Radio Ltd. As a result, the number of major manufacturers in 1957 which totalled 40 was reduced by 1962 to 18.

7. A manufacturer of television and radio sets during the period 1959 through 1963 marketed his sets through three distribution channels:

(a) Sales to rental companies;
(b) Sales to wholesalers; and
(c) Sales to retailers.

There was, in addition, the sale to relay companies and the manufacture by relay companies themselves, but this involved only television reception by means of piped or wired receivers. This distribution was largely in the London area and was proportionately very small.

8. In the distribution by a manufacturer to a rental company during the period 1959 through 1963 the price of such sales varied from 10 to 15% lower than the price at which a manufacturer sold to a retailer. This was in large measure due to volume purchases made by a rental company. During 1960 through 1963 the average manu-
511 facturer's ex-Works price to a rental company for television sets varied from £28 to £34 (exclusive of U. K. purchase tax) and he was informed that certain manufacturers were selling sets to dispose of excess stock as low as £20. Additional discounts are given by a manufacturer to a rental company for settlement and prompt payment, and during the period 1959-1963 a 3¾% settlement discount was given if the rental company paid within seven days of receipt of the invoice and 2½% if payment was made within thirty days of such receipt. Frequently, manufacturers find it necessary to give large rental companies long term credit extending as long as 18 to 24 months.

9. An arrangement between a manufacturer and a rental company was and is by necessity a close relationship. The rental companies work closely with the manufacturers in making technical and style changes which they feel are necessary. A rental company will order on very short notice and expect delivery within forty eight to seventy two hours notice of large quantities of television receivers. Some order regularly on a weekly basis. Con-

sequently, a manufacturer must have production lines, capacity, inventory and appropriately situated warehouses in such a position as to meet these large demands on short notice. In addition, the supply of spare parts must be handled on the same level and with the same efficiency as the complete receivers.

512 10. The rental companies commanded a large share of the television market during the period 1959 through 1963. This growth was due to many reasons, such as:

(a) the larger down payment required in the case of purchased sets;

(b) free servicing and spare parts supplied by the rental companies to the renting consumer;

(c) no delay in servicing rented sets;

(d) protection against obsolescence and technical changes in television receivers through the rental of sets.

During the period 1959 through 1963 the percentage of rental business as a proportion of the number of sets manufactured was as follows:

Period	Average Percentage of Sets Committed to the Rental Business in the U. K. as a Proportion of Sets Manufactured
May, 1959-December, 1959	40%
January, 1960-December, 1960	50%
January, 1961-December, 1961	50%
January, 1962-December, 1962	70%
January, 1963-May, 1963	70%

11. A manufacturer could only sell to a rental company in the United Kingdom during 1959 through 1963 when his price was competitive. Attempts to sell quality sets at a premium price to a rental company would have been difficult if not impossible since a rental company has little

or no demand for premium sets. In negotiations conducted
by Radio & Allied with rental companies during 1960
513 through 1963, price was always the primary considera-
tion. During the period 1959 through 1963 the popular tube size television receivers, namely 17 inch to 19 inch, were sold by Radio and Allied to large rental companies purchasing substantial quantities at prices ranging from a little below £30 to £36 per set and sets of 21 inch to 23 inch screens from £34 to £44. The price difference was accounted for by the higher priced sets being dual line sets and the lower priced sets being able only to receive 405 line transmissions.

12. Many television and radio manufacturers distributed a portion of their production through United Kingdom wholesalers during the period 1959 through 1963. Manufacturers distributing radio and television receivers through unrelated wholesalers during 1959-1963 usually marketed such sets at an intercompany price approximately 15% below the price between such manufacturers and retailers who purchased directly. The distribution through a wholesaler eliminated the need of a manufacturer for a sales force in the area in which the wholesaler operated. Under this arrangement, the manufacturers who sold through wholesalers at this 15% discount were those who had an established name that was publicly accepted in the United Kingdom radio and television market. The manufacturers had established and maintained warehouses and appropriate amounts of inventory at various propitious lo-
cations throughout the United Kingdom for delivery
514 to the wholesaler, the wholesaler was familiar with the servicing requirements for this type of equipment and handled equipment which was in all senses adaptable to the standards of reception and design acceptable in the United Kingdom.

13. Many manufacturers of radio and television receiv-

ers, such as Radio & Allied, distributed in 1959 through 1963 directly to retailers. Approximately 90% of television receivers sold and approximately 60% of radios sold were distributed directly to retailers from the manufacturers during this period. For this purpose, a large staff of salesmen was maintained. Dealing directly with retailers means that the manufacturer must bear some of the expense which the wholesaler might otherwise bear. For example, in 1960 GEC with about 5% of the television market, had a sales force of approximately 36 people costing annually about £100,000. Shipping charges in the United Kingdom are paid by the manufacturer since the sales price to dealers is not an ex-factory price but a delivered price. Another expense incurred by U.K. manufacturers was the cost of financing retailers. During 1959-1963 manufacturers found it necessary to finance many of the retailers to whom their products were sold. The amount of interest rate varied depending on the size and credit standing of the retailer, the purchase price for the products and the Bank rate for interest.

515 14. Television sets sold through retailers during 1959 through 1961 at a price of approximately 30% discount from list price (exclusive of United Kingdom purchase tax) and beginning in 1961 Radio and Allied offered its sets at a discount of 33⅓% during the entire period of 1959-1963. Cash discounts and discounts for payment in 30 days were given to retailers during 1959-1963 at the rate of 3¾% and 2½% respectively. Additional discounts were given for volume purchases by retailers.

15. The manufacturer was required to make various technical changes in its equipment during the period 1959 through 1963 in order to insure that its television receivers would not be obsolete over their expected life of eight to ten years. After the appointment of the Pilkington Committee which began investigating the need and desirability

of reviewing the technical standards for television reception in the United Kingdom, television manufacturers kept themselves well informed of any technical changes which might be suggested by that Committee. Although the Pilkington report was not finalized until 1962 and its proposals suggested to Parliament by the Postmaster General in that year, manufacturers could foresee in 1961 the possible adoption of the 625 line standards for television reception in the United Kingdom. In August and Sep-
516 tember of 1961 manufacturers began producing a dual standard set capable of receiving the 405 line and the 625 line. Consequently, considerable additional costs were required of a manufacturer in order to have his equipment acceptable by the purchasing public for the several years thereafter when it was expected that television reception would include both line standards.

Affiant states that he has read the foregoing and that he knows the contents; and that the same are true of his own knowledge.

/s/ B. T. Reilly
B. T. Reilly

Subscribed and sworn by the above-named Deponent Brian Thomas Reilly at Slough in the County of Bucks England this Sixth day of October One thousand nine hundred and sixty-five,

Before me,
/s/ Wilfrid M. Phillips
Wilfrid M. Phillips
Notary Public in and for the City of London and elsewhere in England.

[Seal]

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

518 AFFIDAVIT OF THOMAS LUDLOW

Thomas Ludlow, of Traps Lane, New Malden, Surrey, England, being duly sworn, deposes and says that were he to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the case of Hazeltine Research, Inc. v. Zenith Radio Corporation, he would testify as follows:

1. He is the Managing Director of Vista Home Rentals Limited, whose principal office and place of business is located at Station House, Morden, Surrey, England.

2. After serving in His Majesty's Armed Forces, he attended in 1944 a one-year course at Southampton University on Radio Technology. Upon completion of that course he was employed as a technical assistant by Marconi Wireless & Telegraph Company, an English company engaged in the manufacture of telecommunication
519 equipment. In 1948, he became a sales representative for a retail sales and rental company, Domestic Electrical Rentals Limited (herein called D.E.R.), an English company engaged at that time in the retail selling and renting of television sets in the United Kingdom. Starting in 1948 as the sales representative of D.E.R.'s single retail store, he subsequently served in a number of capacities for D.E.R., becoming Assistant General Manager in 1951, General Manager in 1953 and Managing Director in 1956. During that period D.E.R. rose from a small operation having one shop to one of the largest rental companies in England and Australia having over 400 outlets when he resigned in December, 1963, to form a new rental company named Vista Home Rentals Limited. He has spent approximately 17 years in the television rental business in the

United Kingdom and has been engaged in and/or supervised all phases of this business. He has also been active in the Electronic Rentals Association, Limited, a trade association representing all television rental companies in the United Kingdom and was Deputy Chairman of that organization from 1961 to 1963. In 1960, he was asked to give oral and written evidence on behalf of the Electronic Rentals Association Limited to The Committee on Broadcasting, 1960 (sometimes referred to as the Pilkington Committee) which had been appointed by the Post-
520 master General in 1960 to study television and radio broadcasting in the United Kingdom. The Electronic Rentals Association Limited therein advocated in December, 1960 the introduction of a 625 line standard for television receptions in the United Kingdom to supplement the existing 405 line standard.

3. The rental (as opposed to sale) of wireless receivers for home use started in 1932 when radios were made available on a rental basis by Radio Rentals Limited, now the largest television rental company in the world. Radio Rentals Limited also started renting television sets on a small commercial scale prior to World War II and continued this operation after the War when television broadcasting was resumed in June of 1946. The television market generally developed slowly until 1953 when the Coronation of Queen Elizabeth was televised in June of that year. After that, television sales and rentals increased substantially. For television receivers, the rental market has increased in greater proportion than the sale market. This was due to a number of factors:

(a) In the case of an outright sale, the cathode ray tubes (otherwise called picture tubes) carried a short guarantee of six (6) months and their cost of replacement varied between £20 and £25 or approximately 25% to 33⅓% of the retail price of

521 the set in 1953-1954, and the replacement tube could not be purchased on hire purchase. This placed a considerable risk on the purchaser which, in the case of rented television receivers, was assumed by the rental company since parts were guaranteed during the entire rental period.

(b) Service on a purchased set was often difficult to obtain and expensive and often caused delays of several days to several weeks before the set was placed in working order. Consumer groups such as WHICH and newspapers produced and published surveys which showed great variation in the quality of television repair service and the charges for it. Rental companies could and did tell prospective customers that they need not worry about these service problems because the rental company guaranteed a working set and would repair or replace the set immediately without charge if it went out of service. Offering immediate service was also a significant factor in increasing the
522 rental share of the market. Television became a very important part of the British household, and it was considered a very serious matter to have to be without a set for any length of time while it was being repaired. If the rental set could not be repaired immediately in the home, the rental company replaced it immediately with a comparable set in working order at no charge to the renting consumer and the defective receiver was taken back to the rental company's repair shop for repair.

(c) An additional factor contributing to the growth of the rental market was the down payment required in the case of purchased sets. Under the legal requirements for the hire purchase transac-

tions (sometimes referred to as conditional sales contracts) a purchaser in 1953 and part of 1954 was required to make a down-payment of one-third of the total purchase price of the set (which included the purchase tax). At that time no down-payment was required in the case of rented receivers.

523 (d) While renting had once been thought of as used only by poor who could not afford to purchase a set, considerable advertising and a change in methods pioneered by affiant at D.E.R. transformed the image of renting and created the impression that it was both economical from the service point of view and prestigious to rent a television set. Originally rental companies in curtained, secluded shops with plain unmarked vans because they believed that their customers would not want their friends and neighbours to know that they were renting instead of purchasing a television set. Affiant while with D.E.R. got the idea that rental should not be something only for those who could not afford to buy but should be presented to the public as a highly desirable and economical way of obtaining television reception. Consequently, he changed their methods to use open show rooms, bright colored vans and promoted rental as the sound way to acquire a television set even if the consumer could afford to buy one.

524 (e) As technological advancements were made, renting became more popular because the customer could acquire a later model by merely paying additional rental charges without an additional capital outlay. Television sets have changed considerably since after the end of World War II when a nine-

inch set was most popular, gradually increasing in size of screen over the years from 9 to 12 inches, 12 to 14, 14 to 17, and 21 inch sets and to the presently popular 19 inch and 23 inch sets. This change, plus reduction in size of cabinets, newer styled cabinets, better quality picture tubes, better control adjustments and sound and picture reception advancements, created an obsolescence in purchased sets that renters could easily by-pass.

(f) Up until 1954, England had only one program and the sets did not require tuners. In 1954, when the Independent Television Authority began to broadcast, all of the sets then in existence would not receive the ITV and could be made to receive it only by an expensive and unreliable conversion. This also contributed to the growth of rental because the renter did not have to fear that he was putting a substantial amount of money in a set that might be obsolete.

(g) Another factor which enabled the rental companies to compete effectively against retail sellers was the favorable tax treatment which they were afforded. Because the rental company owned the sets which were out on rental, they were treated as plant for investment allowance purposes. Sales companies, on the other hand, could not treat the sets which they were selling on hire purchase as a part of their plant for investment allowance purposes. The result was that the rental companies received a credit against their income taxes amounting to almost 30% of the cost of the sets which the sales companies could not qualify for. As a result, the rental companies were able to reduce rental rates to even more effectively compete against sales companies.

526 Although the hire purchase restrictions were removed in July of 1954, various other reasons continued to propel the advancing rental market. When hire purchase controls were re-imposed on the consuming public in February 1955 at 15% and increased in July 1955 to one-third, the rental market continued to grow at even greater strides. Hire purchase controls were increased to 50% in February 1956. At the same time, rental restrictions were imposed which required a deposit of nine month's rental before a television set could be rented, but rental customers were encouraged by D.E.R. (and later by most rental companies) to treat this not as an advance payment of the first nine months but as a deposit returnable upon termination of the rental contract or applied to another rented set. As a result, this control restriction even contributed to advance the share of the market held by the rental companies, since by not crediting rental charges against the deposit, the customer always had a deposit equal to or approximately equal to the amount required to obtain a new set. A purchaser, on the other hand, was forced to come up with a new down-payment on each new television receiver. This amounted to forced saving by the rental customers and for this reason appealed to many of them. The rental busi-

527 ness continued to flourish during this period of 1956 to 1958 and in 1958 an estimated 40% of the total production of television sets in the United Kingdom was out on a rental basis or committed to the rental business as stand-by replacements. The rental controls were reduced in September of 1958 from a nine months rental down-payment to four months. Subsequently, in October of 1958, the controls on rentals, as well as the controls on hire purchase transactions were completely abolished. Nevertheless, the rental business continued to grow and took a larger and larger share of the total television market. As a result of the continuously significant increases in the rental market

by late 1958 and 1959 manufacturing companies and individual retailers who had previously fought the rental competition were beginning to rent themselves. Manufacturing companies began to sell a large perdentage of their output to rental companies and retailers carried both a rental line and a line for outright sale.

4. In late 1959 and 1960 the market for television sets declined due largely to market saturation. The production and sale of receivers in 1960 through 1963 never again regained the high levels achieved in 1959. As a result, manufacturers and retailers developed excess inventories. In an effort to unload this excess, many retailers and manufacturers began to rent where theretofore they had only
528 sold receivers. They continued to do so through 1963 and thereafter.

5. Rental as opposed to outright purchase was also encouraged by the serious discussion which began in 1960 of the possible introduction of line standard changes for television reception. The consumer who purchased outright took the risk that he might be stuck with a set that would would not receive the new transmission.

6. The total percentage of sets rented during the period from May, 1959 through May, 1963 was as follows:

Period	Average Percentage of Sets Committed to the Rental Business in the United Kingdom as a Proportion of Sets Manufactured
May, 1959 — December, 1959	40%
January, 1960 — December, 1960	50%
January, 1961 — December, 1961	50%
January, 1962 — December, 1962	70%
January, 1963 — May, 1963	70%

7. Before a rental company would purchase television sets from a manufacturer either currently or during the

period from 1959 to 1963, the rental company must have been assured that the manufacturer would have been engaged in the business of manufacturing and distributing television sets in the United Kingdom for many years since a rental set was expected to last from seven to nine years. The rental company must have been assured that the manu-

529 facturer will be manufacturing and distributing sets and spare parts to serve its current and discontinued models throughout this period. The nature of the rental business also requires that any substantial rental company work closely with manufacturers for design and technical changes. Manufacturers are expected to maintain inventories throughout the United Kingdom to supply the need of the rental companies within 48 to 72 hours notice. Because of these needs, many rental companies started their own manufacturing facilities or entered into long-term arrangements with established companies during the period 1959 through 1963. D.E.R. was owned by Thorn Electrical Industries, Limited, a substantial manufacturer. Radio Rentals, the largest rental company, manufactured its own sets. Rent-a-set had special arrangement with G.E.C. Rediffusion and Derwent manufactured their own sets. British Relay Wireless was partially owned by Pye, and Robinson Rental had an agreement with Thorn.

8. Price is a matter of utmost importance to the rental companies. Most rental customers choose a set on the basis of picture tube size and monthly rental. If a reasonably good English made 19 inch set is available at 9s.6d. per week with guaranteed service, hardly anyone would pay substantially more than that for a set simply because it was better styled and required less service. Indeed, the rental market in 1959-1963 established a weekly rental level of eight shillings and sixpence (8s.6d.) to ten shillings

and sixpence (10s.6d.) with an occasional premium 530 model at 11s.6d. or 12s.Od. Those luxury models which

were and are rented at 12 shillings per week represent less than 10 per cent of the rental market, and it would have been impossible to obtain any measurable share of the rental market with a set that required a higher rental even if it were better in quality and appearance. Luxury models of various makes including imports have been available for rental from high quality specialty and departmental stores, but they have never obtained any measurable share of the market.

9. To be profitable, rental companies in 1959 through 1963 considered it necessary to recover the cost of the set (including purchase tax) during the first two years that the set was rented. During 1959 through 1963, large rental companies paid an average price of from about £44 to £47 including purchase tax. (In 1960 the purchase tax was 50% of the wholesale price; thus, the price received by the manufacturer on the £44 set was only £29. 8s.Od.).

10. A further factor which would make higher priced sets undesirable for rental is that it would be difficult to get a sufficient rental on them as used sets. Rental companies normally lose 12½% of their customers every year. This means that each year a rental company has a very large number of used sets to find renters for. It would be very difficult on secondhand rental to get the premium
531 rental necessary to cover the cost of high priced sets, since most renting consumers who could afford the higher rental would prefer a new set to a secondhand one. Also, expensive elaborate cabinets have been found to be unsatisfactory for rental because they are difficult to repair and expensive to replace. Metal cabinets also would be unsatisfactory because they are considered unsafe in England. Because of the higher voltage used in England and the varied wiring found in British homes, it is generally felt that metal cabinets would be a safety hazard. Rental companies particularly, since they own the sets and would

be responsible for injury, would be reluctant to use metal cabinets.

11. Because of the need to develop a close relationship with a local manufacturer, a rental company would not likely have made an arrangement with a foreign manufacturer during the period 1959 through 1963 when such manufacturer was entering the television market for the first time in mid 1959. Similarly, they would not have been prepared to purchase television sets manufactured in the United States to American specifications and later adapted in the United Kingdom to comply with British standards during the period of 1959 through 1963, and they would not have been prepared to purchase television sets from a foreign manufacturer during 1959-1963 until such manfacturer had developed sufficient warehouses and inventory of 532 complete sets and spare parts in the United Kingdom to give prompt and efficient service within 48 to 72 hours notice anywhere in the United Kingdom.

12. The substantial growth of rentals in the television industry has not only forced sales prices down but has also changed the whole concept of television reception in the United Kingdom. Instead of regarding a television set as a piece of furniture, the English consumer views it as a means of obtaining the television service much the same as he views the telephone. There is no longer the great public interest in new designs and cabinet styles, and manufacturers have abandoned the idea of constantly changing cabinets and design to promote sales. For years, the British radio and television industry put on an annual Radio Show to display their new models which was attended by hundreds of thousands of people. But interest waned because the British consumer is no longer interested in whether this year's models will have sliding doors or walnut cabinets, etc., and the annual Radio Show has been abandoned.

Affiant states that he has read the foregoing: that he knows the contents thereof; and that the same is true of his own knowledge.

/s/ THOMAS LUDLOW
Thomas Ludlow

534 Subscribed and sworn by the above-named Thomas Ludlow at the City of London, England this Fifth day of October One thousand nine hundred and sixty-five,

Before me,

/s/ WILFRID M. PHILLIPS
Wilfrid M. Phillips
Notary Public,
[SEAL] London, England

IN THE UNITED STATES DISTRICT COURT

* * (Caption—59-C-1847) * *

537 AFFIDAVIT OF JOHN H. CARTER

John H. Carter, of 53 Manor Road, Keynsham, Bristol, England, being first duly sworn, deposes and says that were he to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the case of *Hazeltine Research, Inc.* v. *Zenith Radio Corporation,* he would testify as follows:

1. He is a Director of John James (Bristol) Limited with offices at 12-14 Broad Mead, Bristol, England. John James (Bristol) Limited is a subsidiary of the John James Group of Companies Limited.

2. He has been with Mr. John James and his companies in the radio and television retailing business for 17 years and has held a number of different positions including store manager and area manager.

3. The John James Group of Companies Limited (here-

in called John James) has a chain of over 230 retail
538 stores which specialize in the retail sale of electrical appliances such as radio, television, radiograms and gramophones, as well as such white goods as stoves and refrigerators.

4. He is and has been for 10 years charged with the responsibility of supervising and managing the retail stores of John James in South Wales and the west of England. In this area, there are 102 stores under his management and supervision. He has supervision over purchasing, store management and all other phases of the retail trade conducted by this group of 102 retail outlets.

5. The primary consideration of a retailer, such as John James, is making arrangements with a manufacturer of radio and television receivers is price. This is also true where a retailer makes arrangements for distribution of receivers with a wholesaler, but the practice of John James and other multiple store companies is to purchase directly from the manufacturer. In his negotiations with a manufacturer or wholesaler the retailer always keeps in mind the retail price at which the receivers are to be marketed as well as the price to him. Considerations of price became most important at the end of 1959. After a boom period in 1958 and 1959, the sales of television receivers starting in late 1959 and 1960 substantially declined. This resulted in price reductions in order to dispose of existing stocks and a great deal of change in the industry. From that time on, the combination of the reduction in the total
539 turnover of sets and the increasing percentage of rentals as opposed to outright sales made price the most important factor in marketing television sets.

6. In the television industry the price to the retailer is stated as a discount from the retail list price (excluding purchase tax). A group of stores such as John James usually receive 30% off the retail selling price (less pur-

chase tax) plus an additional 10% off the wholesale price for quantity purchases and 2½% for payment within 30 days.

7. During the period of 1959 through 1963, and today, it would not have been possible for John James to obtain even a small fraction of 1% of its television with sets costing it £62 or more (excluding purchase tax). Such a set including the purchase tax of 50% would have to sell in the neighborhood of £135.

8. During the period 1959 through 1963, a retailer in the United Kingdom would not have made arrangements with a foreign manufacturer unless his television receivers were convertible and completely adaptable to standards of television reception in the United Kingdom. Beginning in 1961, a retailer would have required that the foreign manufacturer produce television receivers designed to receive both the 405 and the 625 line standards of television reception. Although the 625 line standard was not put into effect until later, retailers as a result of public pressure were forced to market sets which could be adaptable to both line standards because it was expected that the 625 line standard would be adopted.

9. Brand names, while they have been relatively unimportant in the rental of Television, have been significant in the sale of television and radio sets in the United Kingdom. In the case of television sets, public acceptance has been based largely upon the strength and reputation of the manufacturer in the production and sale of radio sets. Zenith is a name which would be recognized by members of the radio and television industry, but in 1959 it was not known by the consuming public. In order for a new company without a reputation publicly to gain public acceptance for the marketing of its radio and television sets, substantial advertising would have to be required. Advertising expenditures would be largely directed to distribution

and acceptance by the public once the set or sets are in the hands of retailers. Advertising would not help the foreign manufacturer to make arrangements with United Kingdom retailers since this would be largely based on quality and price, with price as the primary consideration. The above considerations were true during the period of 1959 through 1963 just as they are true today.

10. The John James Company, Limited through its 541 retail outlets, has developed over a period of years, a market for the rental of television sets. This market has been particularly appealing to many consumers because of the free service and free parts made available under the rental contract arrangement. The rental fee is figured on the basis of 2 - ½ pennies per week for each pound of the wholesale price including the purchase tax. Thus, a set that cost the retailer £45 (including purchase tax) would have a weekly rental of 112 pence or 9 shillings and 4 pence. Because the renting consumer is more interested in price than in quality, television sets with superior craftmanship and design would have little or no appeal on the rental market. Indeed, a set which would have to rent for 20 shillings per week would have no practical market at all. Because rental price is so important, a retailer such as John James would not be willing to pay an amount in excess of the average purchase price for the sets normally available for rental in the United Kingdom.

Affiant states that he has read the foregoing and that he knows the contents; and that the same are true of his own knowledge.

/s/ JOHN H. CARTER
John H. Carter

Sworn by the before named John H. Carter at Bristol, England this 6th day of October 1965.

Before me

/s/ J. R. C. MANNERS
Notary Public.

[SEAL]

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

542 AFFIDAVIT OF JAMES THOMSON MASTERTON

James Thomson Masterton of Slade House, 17 Pembroke Road, Moor Park, Northwood, Hertfordshire, England, being first duly sworn, deposes and says that were he to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the case of *Hazeltine Research Inc.* vs. *Zenith Radio Corporation,* he would testify as follows:-

1. He is Deputy Chairman and Managing Director of Brown Brothers Ltd., whose registered office is located at Brown's Buildings, Great Eastern Street, London, E.C.2., England.

2. He was born in November 1903 at Manchester, England and was educated at Taunton School, Taunton, England. He is acting and has acted as Managing Director in the supervision of Brown's wholesale distribution business since 1952. Prior to his becoming Managing Director,
543 he served with Brown in various capacities from 1921 becoming a General Manager in 1937.

3. Brown Brothers Ltd., and its subsidiaries (hereinafter collectively referred to as "Brown") specialize in the wholesale distribution of goods in the United Kingdom and overseas and have done so for many years including the years 1959 through 1963. In 1963 and 1964, Brown handled the wholesale distribution of goods valued at £22,900,000 and £24,850,000 respectively. Brown specializes (and has specialized for many years including the years 1959 through 1963) in the wholesale distribution of radios, television sets, other electrical goods, automobile accessories and components, and bicycles and components. In addition to the wholesale distribution of radios and television sets, Brown distributes (and has distributed for

many years, including the years 1959 through 1963) radio valves, television tubes and all items required for the repair and maintenance of television receivers. Brown maintains (and has maintained for many years including the years 1959 through 1963) more than 46 different locations throughout the United Kingdom, which are used in its wholesale distribution business in order to cover the sale and distribution of products throughout the United Kingdom. These consist of warehouses and distribution centers necessary for immediate and effective distribution of its goods. In the distribution of its radio and television receivers and components Brown utilizes more than 34 in number of these locations for effective and complete marketing of these goods.

4. Brown purchases television and radio receivers and components from manufacturers in the United Kingdom. Brown also purchases radios of foreign manufacture in Japan, Italy and Germany. It has not purchased television sets from foreign manufacturers because none were offered that would work under the British transmission system. Brown's wholesale business in radio and television is (and has been for many years including the years 1959 through 1963) amongst the largest of such businesses in the United Kingdom.

5. Currently and during the years 1959 through 1963, Brown performed the following functions as a wholesaler of radio and television receivers in the United Kingdom:

(a) maintained large inventories of receivers and parts for distribution to retailers;
(b) maintained a sales force for such products throughout the United Kingdom and organised arrangements for servicing;
(c) engaged in limited advertising;
(d) delivery of receivers and parts to retailers;
(e) invoicing and collecting from retailers;
(f) handling orders, delivery and payment with manufacturers.

6. In order for a line of radio or television receivers to be handled by Brown currently or during
545 the period from 1959 to 1963, the manufacturer would have to have an established brand name if its prices were competitive, or without such an established brand name its prices would have to be substantially below those of its competitors.

7. It is and was during the period of 1959 through 1963 very important that a close relationship be developed between the wholesaler and manufacturer of television and radio receivers because of the necessity for short delivery times, the handling of servicing problems, advertising coordination and availability of parts for current and discontinued models.

8. Price has always been an important factor in England in the marketing of radio and television receivers. Brown would not consider taking on a line of such products unless the sale price from the manufacturer to Brown was sufficiently low so that Brown and the retailers through whom Brown arranged the distribution could make a reasonable profit after expenses. The relationship of the ultimate retail price of the receivers and the price at which Brown purchases them from the manufacturers have always been of the utmost importance in any such arrangement. During 1960 and carrying at least through 1963, with the decline in the sales of television receivers due to market conditions, price became an even greater factor. In the fact of the downward trend of prices during this period, introducing a new line of higher priced sets—even though of
546 higher quality—would have been very difficult.

9. Brown's participation as a wholesaler for a radio and television manufacturer normally results, and has resulted in the past including the years 1959 through 1963 in a minimum gross mark-up to Brown of 15 per cent of the ultimate retail price of such sets (less the applicable United

Kingdom purchase tax). This is a minimum gross mark-up and a higher rate would be required if the manufacturer does not have an established name or reputation among consumers in the radio and television field in the United Kingdom. In fact, on radio receivers considerably higher rates have been required from time to time in the past. This minimum gross mark-up of 15 per cent would, in the normal course of business, only be acceptable if the manufacturer were willing to assume on its own behalf the following additional costs:—

(a) All initial and continuing advertising costs;

(b) the costs of ensuring availability of finished radio and television sets and spare parts thereof in the United Kingdom;

(c) major servicing made available at the expense of the manufacturer;

(d) in the case particularly of an overseas manufacturer, all costs of conversion and adaptation of the sets for suitability to the United Kingdom market, including standards of reception and design, and the supply of spare parts or a free issue to the wholesaler in lieu, would have had to be borne by the manufacturer.

10.—Having regard to the factors enumerated above, 547 an overseas manufacturer would face currently and during 1959-1963 the following particular difficulties in selling radio and television receivers through the United Kingdom wholesale trade which difficulties would either not exist or would be much less in the case of a United Kingdom manufacturer:

(i) a wholesaler would be extremely cautious in the quantities he accepted from an overseas manufacturer whose name was new to the United Kingdom market until after an initial sales campaign had been partially fulfilled and a reasonable assessment

of the demand from the retail trade had become possible. This sales campaign would involve substantial initial advertising costs and/or other costly sales promotion efforts which would be substantially in excess of those incurred by a known manufacturer introducing a new model;

(ii) the wholesale distributor would have to insist upon the manufacturer maintaining adequate stocks of sets and parts or such distributor would have to maintain additional inventory of stocks and parts himself and require an increased mark-up in consequence;

(iii) the manufacturer would have to set up and maintain a sufficient servicing organization which in the case of a United Kingdom manufacturer would be part of his manufacturing and servicing operation.

11. Brown would not have contracted during the period of 1959 through 1963 with a foreign manufacturer whose radio and television sets were adapted to the United Kingdom standard of reception, unless the foregoing conditions had been fulfilled and unless an increased mark-up had 548 been obtainable in addition.

12. Brown is thoroughly familiar with list prices and the discounts required now and during 1959-1963 by retailers with whom Brown made arrangements for distribution. In England the price to the retailer is stated in terms of a discount from the established retail price. The gross profit margin that a retailer required for the sale of radio and television receivers is and for many years (including the years 1959 through 1963) has been 33⅓ per cent of the retail list price (less the applicable United Kingdom purchase tax) with regard to radio receivers and 30 per cent of the retail list price (less the applicable United Kingdom purchase tax) with regard to television sets. In addition, chains of stores and other large quantity purchasers fre-

quently demand and receive higher discounts. These retail mark-ups or discounts are and were during 1959 through 1963 in addition to the wholesale profit margin obtained by Brown.

Affiant states that he has read the foregoing; that he knows the contents thereof; and that the same is true of his own knowledge.

/s/ JAMES THOMSON MASTERTON
James Thomson Masterton

• • •

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

551 AFFIDAVIT OF CHARLES ARTHUR WHITE

CHARLES ARTHUR WHITE, of 140 Portland Crescent, Stanmore, Middlesex, England, being duly sworn, deposes and says that were he to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the case of *Hazeltine Research, Inc.* v. *Zenith Radio Coporation*, he would testify as follows:—

1. He is a Director of Magnet Shipping Services Limited, a subsidiary of General Electric Company, Limited (GEC) with offices at 1 Stanhope Gate, London, England.

2. He started with GEC in 1921, and has held a number of positions with that company and its subsidiary companies. From 1948 until the present, he has been engaged in the supervision and administration of import and export procedures dealing with the import and export of goods into the United Kingdom for GEC and since 1963 for Magnet Shipping Services Limited.

552 3. Using available information, he has had prepared, under his supervision, an estimate of the costs of importing 100 cartons of 17 inch television receivers into the United Kingdom from the United States from a port of export in Chicago to a warehouse in the United Kingdom during the period 1959-1963, which is as follows:—

100 Television Receivers

	Dollars	*Sterling*
Freight (Chicago to London) 450′ at $57.87 cubic ton	$651.04	£233. 7s. 0d.
Canal Tolls 7,000 lbs. at 90¢ per 2,000 lbs.....	3.15	1. 2. 7d.
Bill of Lading	1.39	10s. 0d.
Agency (shipping)	27.90	10. 0s. 0d.
Insurance $17,220 at 1.5%.....	258.30	92. 11s. 8d.
Landing and Delivery 26/-d. per ton weight +97%	22.32	8. 0s. 1d.
Port Rates 6/-d. per ton +10%	2.86	1. 0s. 8d.
Opening for Customs..	3.49	1. 5s. 0d.
Rent 1 week at 2/6d. per ton weight +95%	2.10	15s. 3d.
Import Entry	3.49	1. 5s. 0d.
Agency (import)	2.09	15s. 0d.
London Clause Charge	.76	5s. 6d.
Cartage— Docks to Warehouse 24/6d. per ton	13.67	4.18s. 0d.
	$992.56	355 15s. 9d.

The above figures are based on a carton size of 18" x 18" x 24" for a television receiver and each television receiver was assumed to have a value of $150.00.

Affiant states that he has read the foregoing; that he knows the contents thereof; and that the same is true of his knowledge.

/s/ CHAS. A. WHITE
Charles Arthur White

Subscribed and sworn by the above-named Deponent Charles Arthur White at 1 Stanhope Gate in the County of London England this Seventh day of October One thousand nine hundred and sixty-five,

Before me,

/s/ MAURICE PHILLIPS
Maurice Phillips
Notary Public,
London, England.

[SEAL]

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

556 AFFIDAVIT OF S. E. ALLCHURCH, O.B.E.

S. E. Allchurch, of Brockham Warren, Boxhill Road, Tadworth, Surrey, England, being first duly sworn, deposes and says that were he to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the case of *Hazeltine Research, Inc.* v. *Zenith Radio Corporation*, he would testify as follows:—

1. He is Director of The British Radio Equipment Manufacturers' Association (herein called "BREMA")

whose office and place of business is located at 49 Russell Square, London, W.C.1., England.

2. From 1931 to 1940 he was Director of a Radio Television and Electrical Retail Business. From 1940 to 1946 he was a temporary civil servant in the Ministry of Aircraft Production dealing with co-ordination of re-
557 search, development, production and use of radar and radio apparatus in aircraft. He became assistant director in the department. Then from mid-1946 to date he has been chief executive officer of BREMA firstly as Secretary and from 1961 in the newly created post of Director of the Association.

3. BREMA is a trade association whose members are British radio and television manufacturers. BREMA renders services on behalf of its members in collecting statistical data on radio and television manufacturing, sales, importing and exporting through the submission of member company statistical returns and from government agencies. BREMA is engaged in the supervision, planning and co-ordinating of technical developments in radio and television equipment used in the United Kingdom, the participation in television and radio exhibitions and shows, the publishing of annual and monthly reports of the work of BREMA and its various committees, the representation of its members before government agencies and other groups in various capacities, and generally assisting the British manufacturers of radio and television in their promotion of the British radio and television industry. Prior to 1963, the membership of BREMA consisted of radio and televi-
sion manufacturers representing approximately 85%
558 of United Kingdom production of such items and dur-
ing 1963 and thereafter, BREMA's membership represented 95% of such production and 100% of television production.

4. In his capacity as Director he has supervised the

operations of BREMA, including the collection of statistical data and the collection of the statistical data contained in the returns submitted by members of BREMA and from government agencies. He has supervised the drafting and compilation of the BREMA Annual Reports and monthly reports sent to members, and has administered the work of the many committees of BREMA which concern themselves with such things as the general economic position of the television and radio industry in the United Kingdom, the technical phases of the development of radio and television in the United Kingdom, and representation of BREMA before government agencies, and other bodies, as well as supervising and administering other phases of the work of BREMA as described in the BREMA Annual Reports.

5. Attached to this Affidavit are Annual Reports of BREMA entitled "BREMA Annual Report" which were presented to the Annual General Meeting of BREMA members for each of the calendar years 1957, 1958, 1959, 1960, 1961, 1962 and 1963. These reports are true and authentic Xerox copies of original published reports prepared by BREMA under his supervision and direction in the ordinary course of the business of BREMA. It was the ordinary course of business of BREMA to prepare such reports on behalf of and for presentation to its members. They have a reputation for being reliable and accurate.

559

6. One of the purposes of these Annual Reports was to describe the trading conditions and level and trends of production and sales of radio and television receivers in the United Kingdom during the course of a year. The Reports are used by the Association, its individual members and others, in making plans and policies and in studying or analysing the British radio and television markets.

Affiant states that he has read the foregoing; that he

knows the contents thereof; and that the same is true of his own knowledge.

/s/ S. E. Allchurch, O.B.E.
S. E. Allchurch, O.B.E.

Subscribed and sworn by the above-named Deponent Sydney Ernest Allchurch at 49 Russell Square in the County of London England this Sixth day of October One thousand nine hundred and sixty-five.

Before me,

/s/ Maurice Phillips
Maurice Phillips
Notary Public,
London, England

[Seal]

610 The Fourteenth Annual Report
of the
British Radio Equipment Manufacturers' Association

Presented by the Executive Council to the
Annual General Meeting, 23rd April, 1959

Gentlemen,

The Executive Council has pleasure in presenting to members of the Association its Annual Report for 1958.

Introduction

General

The recent long struggle to combat inflation culminated in some success during the past year and the opportunity now appears to exist for the Government to take reasonable measures further to stimulate the economy without reviving inflation. Cautious optimism is justified but dangers persist —the rising trend in wages costs, the decline in investment demand and weaknesses in exports. To encourage investment by fiscal measures is not enough, there must be reason-

able certainty in the minds of business men that having taken the decision to undertake new investment there will be a market for the goods when finally produced as a result of it. There is a genuine risk that the delayed effect of any stimulus given may not be felt until the possibility can be seen of the next bout of inflation. This sequence of events has brought with it in the past the too familiar pattern of attempts to rectify the overall malaise of the economy by piecemeal measures directed against production in the durable consumer goods industries. It has been our bitter experience invariably to be one of those industries selected to suffer for the national economic illness through the steps taken to suppress the symptoms of the general inflation.

Within the sector of the economy with which this industry is concerned, three major issues have dominated the work of the Council during the year under review. On commercial matters it has been to bring home to the Government the effects of the stringent controls on hire purchase trading, rentals, and the high level of Purchase Tax. In the realm of technical policy the main pre-occupation has been with an exhaustive study of the future television standards most suitable for the United Kingdom and the many and varied associated problems which any change from existing standards would bring with it. Within the sphere of the industry's own domestic arrangements the long-planned reconstitution and reorganisation of the Radio Industry Council has been successfully and amicably negotiated.

Trading Conditions

The level of industry sales and the pattern of distribution during 1958 were, even for this industry, the subject of exceptional legislative and other measures which led during the first nine months of the year to uncertainty which brought with it difficult trading conditions and a low level of business but, during the last three months, an almost overwhelming bunching of sales and a corresponding at-

tempt to increase production to meet it. The 1958 April Budget lowered the rate of Purchase Tax from 60% to 30% on most durable consumer household goods other than our own products. This, in addition to the earlier anticipation of changes in the Budget, led to subsequent widespread expectations of Purchase Tax reductions on radio and television goods later in the year. The general easing of overall credit controls enabled the Banks in September to offer credit facilities and personal loans which, to some extent, appeared to enable the public to sidestep the stringent deposit regulations aimed at restricting consumer ex-
611 penditure. This action by the Banks was shortly followed by a downward adjustment in deposit requirements for hire purchase trading and rentals. The revised rates of deposit widened the previous differential advantage of rentals as against other credit transactions and caused boom conditions in rentals, whilst leaving other forms of trading relatively unaffected. A few weeks later, on 29th October, the regulations were abolished. An immediate impetus was given to trade during the peak seasonal period for the industry. This series of measures created an awareness that pre-Budget trading might more than normally decline and remain at a low level until the 1959 Budget removed the immediate uncertainty of the future rate of Purchase Tax.

The above account outlines the conditions under which the industry had to operate and because of which, from time to time, representations were made to the Government. The necessity was emphasized on these occasions for establishing and maintaining stable conditions in which our section of the radio industry could market its products and plan its production. Meetings took place with Ministry of Supply officials and later with the Minister himself, at which it was made clear that we were not concerned with special pleading, but with ensuring that the various De-

partments concerned, particularly the Treasury and Board of Trade, were made fully aware of the short and long term effects of very high Purchase Tax rates and stringent complementary regulations controlling credit trading. The Departments concerned welcomed and appreciated the information with which they were provided which gave them a realistic insight into the complexity of the problems which industrialists had to face and the internal problems within industry caused by Government intervention with trading. It was clear that neither our sponsoring Ministry, nor the Board of Trade, had appreciated, for example, the effect of the long continued high level of Purchase Tax on the development and sale of VHF sound receivers or its effect on the slow and disappointing acceptance of the 21″ and larger screens for television receivers on the home market, nor our disadvantage in competing overseas where 21″ tube sets predominate, whilst they represent no more than 7% of current sales in the United Kingdom. As a result of these meetings, the Minister made representations to the Treasury in support of our contentions and although a meeting with the Treasury did not take place, there was reason to believe that attention was being paid to the written evidence submitted. At a meeting with the Board of Trade under the auspices of the R.T.R.A., the opportunity was again taken, in supporting their case, to contend that rental trading was being given undue emphasis, vis-a-vis other forms of transactions, under the earlier Regulations and as modified in September. On this occasion, as in our own representations and correspondence with the Ministry of Supply, we explained that, as an Association, we did not favour one form of distribution more than another but that we felt very strongly that the public should be left to choose for themselves the method of acquiring goods under free market conditions; our objections rested on the legislative measures which imposed differential terms of trading whereby one

form of acquisition was made more attractive to the public than another. Disappointment was felt that the Regulations as modified at this time not only perpetuated this anomaly but, indeed, widened the differential between the initial deposits required for rental and hire purchase transactions. Support was also given by the Association to the B.V.A.'s case to the Treasury for the removal of Purchase Tax on replacement tubes.

The year's trading expressed in terms of turnover does not reflect the anxieties and uncertainties which dominated the first few months. The importance of timing in introducing legislative changes could not be better illustrated than by the induced boom superimposed on the seasonal peak in sales during the last three months which has continued into the early part of 1959. Home disposals at ex-Works values of £86.8m. were 3% higher than in 1957 and 26% higher than in 1956 but nevertheless had no more than recovered to the 1955 level of £86.6m. A similar pattern was shown for total turnover which in 1958 was 24% and 3% greater than during 1956 and 1957 respectively and virtually unchanged on 1955.

Technical Policy.

Last year mention was made of the joint research project jointly undertaken by the industry, the Broadcasting Authorities and Government Departments, into propagation conditions in Bands IV and V. These tests were a necessary preliminary to the further study of the possible future development of television in the United Kingdom which has been the principal pre-occupation of the Council in the sphere of technical policy this year. The Council, during this investigation, had to assess very carefully the suitability of the present U.K. standard for continued

612 use over a long period and the commercial as well as

the technical problems associated with any decision to adopt a higher definition system—which carries with it the necessity for utilising frequencies in the UHF Bands IV and V. The eventual introduction of a colour television service has had to be kept in mind.

Amongst the many aspects of this subject exhaustively examined have been the relative lack of potential for further development of the British 405-line system and its suitability for extension into the UHF Bands; the problem of ensuring a continuing market for receivers during the transitional period if a change to higher definition is decided upon; the provision of television receivers for any new standard which would be comparatively simple to manufacture and for the public to operate; and a plan which would make possible the number of programmes which may be required with nation-wide coverage.

These issues together with many other technical and allied commercial problems, amongst which are the trading and cultural implications of the possibility of sharing common standards with other European countries, require the exercise of great care in their solution.

This industry is probably more dependent than any other on the policy and decisions by the Government and their interpretation by authorities outside the industry itself. Nevertheless, we are fortunate in having established a strong and valued tradition of close co-operation with the Administration. Our appraisals of technical policy at each stage of the development in the broadcast services and their practical implementation have been taken fully into consideration by the Authorities when coming to a decision. This tradition, so carefully nurtured over the years, has probably never been of greater importance than at this juncture in our affairs.

• • •

620

TABLE I.

INDUSTRY PRODUCTION, TOTAL HOME DISPOSALS AND EXPORT SALES, 1956/7/8.

Nos. 000's

Product	Production			% Change		Total Home Disposals			% Change	
	1956	1957	1958	'58 on '56	'58 on '57	1956	1957	1958	'58 on '56	'58 on '57
				%	%				%	%
Radio Receivers (incl. Car Radios)	1,446	1,600	1,510	+ 4	— 6	1,081	1,357	1,265	+ 17	— 7
Radiograms	236	243	264	+ 12	+ 9	230	266	218	— 5	— 18
Television Receivers	1,457	1,867	1,985	+ 36	+ 6	1,449	1,816	2,020	+ 39	+ 11

Product	Export Sales*			% Change	
	1956	1957	1958	'58 on '56	'58 on '57
				%	%
Radio Receivers (incl. Car Radios)	324	289	234	— 28	— 19
Radiograms	9.2	11.3	17.0	+ 85	+ 50
Television Receivers	11.2	17.9	24.5	+ 119	+ 37

* Export Sales are ex-factory, not ex-U. K. port.
Source: Ministry of Supply and estimates based on BREMA Members' Returns.

TABLE II.

VALUE OF INDUSTRY TURNOVER, 1956/7/8.

£000's

Product	Total Home Disposals (ex-works prices)			% Change		Export Sales* (f.o.b. prices)			% Change	
	1956	1957	1958	'58 on '56	'58 on '57	1956	1957	1958	'58 on '56	'58 on '57
				%	%				%	%
Radio Receivers (incl. Car Radios)	9,204	11,336	10,881	+ 18	— 4	2,891	2,445	2,124	— 27	— 13
Radiograms	5,889	6,889	5,518	— 6	— 19	271	332	399	+ 47	+ 20
Television Receivers	53,844	65,775	70,428	+ 31	+ 7	462	651	914	+ 98	+ 40
Total Turnover	68,937	83,950	86,827	+ 26	+ 3	3,624	3,428	3,437	— 5	+ †

Source: Ministry of Supply and estimates based on BREMA Members' Returns.
* Export sales are ex-factory, not ex-U. K. port.
† = less than 1%.

• • •

621 Price Levels

The Board of Trade have issued a new series of wholesale prices indices with 1954—100 in lieu of the previous base, 30th June, 1949—100. The decision to change the base period involved the re-calculation of the individual indices for each of the representative models submitted by the panel of members forming the sample on which our section of the index is formed. The index measures the movement in prices after adjustment has been made for any changes in quality, i.e., it should indicate not merely average prices over a period but "value for money".

The index (Table IV) and average prices (Tables V, VI) show that real and money prices for our products continue to be reduced over the years. The index for domestic appliances as a whole and for each product other than electric fires, however, reveals a steady rise.

622 The "annual averages" in the Index quoted below, differ from the Quarterly Index figures (published regularly in the Board of Trade Journal) due to the method of calculating these averages. For example, the "annual average" for radiograms for 1958 shows a small rise in the index; however, the radiogram index has not risen during the year. It stood at 93.8 at 31st December, 1957, and 93.2 at 31st December, 1958.

• • •

TABLE IV.

BOARD OF TRADE WHOLESALE PRICE INDEX ANNUAL AVERAGES.

1954=100.

Product	1955	1956	1957	1958
Radio Receivers	99.7	97.2	95.0	93.2
Television Receivers	99.1	95.5	90.8	89.6
Radiograms	98.7	96.6	93.1	96.5
Gramophone Records	101.6	104.5	107.9	110.7
Domestic Electrical Appliances	101.2	101.4	102.4	104.1
Electric Vacuum Cleaners	100.0	103.0	106.1	108.4
Electric Cookers	105.6	108.3	111.8	114.4
Electric Fires	104.9	106.6	105.1	103.5
Electric Refrigerators	99.5	94.8	96.1	97.1
Electric Washing Machines	100.0	100.0	98.5	100.6

Source: Board of Trade.

• • •

TABLE VI.

AVERAGE LIST PRICES OF TABLE TELEVISION RECEIVERS* (EXCLUDING PURCHASE TAX) BY TUBE SIZES.

Year	12"	14"	17"	21"
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1954	40 4 2	47 7 10	57 11 10	—
1955	†40 10 6	†50 2 3	†59 9 6	—
1956	37 18 4	47 18 8	55 13 0	66 17 2
1957	‡38 5 10	44 4 5	52 15 2	66 11 3
1958	35 15 6	42 9 6	51 8 0	65 18 6

Source: Estimated from BREMA Members' Returns.

* Television Receivers with radio or radiogram incorporated are not included.

† Rise due to the incorporation of additional facilities for Band III reception.

‡ Introduction of transportable models with VHF facilities.

• • •

625 Imports

1958 showed a marked decrease in the import of all radio receivers, radiograms and chassis. Imports from Germany were 21% less than in 1956 and 38% less than in 1957, while total retained imports from all countries showed a 43% decrease on 1956, and 30% decrease on 1957.

In the last three months of the year, just over 2,600 radio receivers were imported from Japan at an average price of approximately £5 10s. 0d. c.i.f. U.K. Port. These imports were made within the quota of £20,000 for transistor radio receivers granted under the 1958/9 Anglo-Japanese Trade Agreement.

TABLE XI.

U. K. IMPORTS OF DOMESTIC RADIO EQUIPMENT FROM GERMANY AND ALL OTHER COUNTRIES, 1956/1957/1958.

Numbers

Product	Imports ex-Germany 1956	1957	1958	Total Retained Imports 1956	1957	1958
Radio Receivers:						
Mains	7,274	17,443	5,150	17,498	16,430	7,068
Battery	10,307	10,674	7,434	11,945	12,953	8,782
Other	615			4,014		
Total Radio Receivers	18,196	28,117	12,593	33,457	29,383	15,848
Radio Chassis	3,729	1,306	5,781	3,366	1,322	5,791
Radiograms	1,293	409	260	1,307	371	299
Radiogram Chassis	302	101	2	308	91	5
Total all radio	23,520	29,933	18,636	38,433	31,167	21,943
Television Receivers	9	8	23	7,498	6,251	209

Source: H. M. Customs and Excise.

* * *

640 Metal Cabinets

During 1958 it appeared likely that the practice, increasingly common in the U.S.A., of employing metal cabinets with television receivers would become popular in this country, and consideration was given to special safety precautions which would be necessary; the problem was more difficult than in the U.S.A. since the mains supply voltage is approximately double.

Suggestions were made that particular attention should be paid to leakage currents to the cabinet and to the possibility of bridging the gap between the cabinet and chassis by loose metal objects such as screws, screening cans, etc. Spindles which protrude through the cabinet also need special care, and knobs on these spindles should not be detachable from the outside of the cabinet.

It was considered that provisions for earthing the cabinet were essential; this is not a departure from the general principle that an earth should not be relied upon for safety,

since this still applies with metal cabinets, but is an additional safeguard and is coupled with the recommendations that metal cabinet receivers should only be used when an efficient earth connection is available, and that they should be clearly marked to this effect.

Indications are that, in view of these and other difficulties, most manufacturers have abandoned the idea of metal cabinets for television receivers.

• • •

661 **The Fifteenth Annual Report of the British Radio Equipment Manufacturers' Association**

Presented by the Executive Council to the Annual General Meeting, 29th April, 1960

Gentlemen,

The Executive Council has pleasure in presenting to members of the Association its Annual Report for 1959.

Introduction

General

The work of the Council necessarily ranges over a wide field of activities but, as in the past there have been several salient matters to which the main weight of effort has had to be devoted. On the purely commercial side there has been the responsibility of members in relation to purchase tax as complicated by sale or return trading; the consideration of a sales campaign to offset the anticipated decline in public purchases of television receivers, and the threat of competition on our home market from Japanese sources, either by direct exports to the United Kingdom or indirectly after manufacture within third countries, including Eire, Hong Kong and elsewhere in the Commonwealth. In the sphere of commercial/technical policy the continued pre-

occupation has been the study of the direction which developments in television broadcasting for the U.K. should take, with special reference to the impending report from the Television Advisory Committee and the probability of the Government appointing a Commission to examine all aspects of future broadcasting, including associated technical and commercial problems. Within the more intimate realm of the Association's own affairs, though with possible consequences reaching far beyond purely domestic issues, has been the work involved in arriving at, and arising from, the decision to defend the BREMA foreign component content regulation before the Restrictive Practices Court.

Trading Conditions

The buoyancy of the economy as a whole, an expansionist Budget and the absence of credit controls, resulted in virtually boom conditions for household durable goods. Undoubtedly the removal by the Government of restrictions on hire purchase and rental trading in the Autumn of 1958 had the greatest single influence on sales, whilst the reduction of purchase tax applicable to our products from 60% to 50% in the 1959 Budget acted as a comparatively small additional stimulus.

Disposals of television receivers by manufacturers for the home market exceeded 2,750,000, representing an increase of 36% on the previous year and disposals of radio receivers were over 1,500,000, an increase of 19%. For both these products, manufacturers' disposals were the highest ever achieved in the history of the industry. Partially due to increase in popularity of gramophones with electrical amplification, manufacturers' disposals of radiograms, however, declined to 189,000, some 13% below those for 1958. Turnover on the home market at ex-Works values rose by

29% over the previous year to approximately £112 million in 1959. The f.o.b. value of exports was reduced from the 1958 level by 3% to £3.4 million. Total turnover for the home and export markets rose from £91.6 million in 1958 to £115.5 million, an increase of 27.5%.

The high degree of television receiver saturation by households (approaching 70%) and the increasing proportion of replacement demand compared with sets pur-
662 chased for the first time, has led the Council to an examination of the future demand for our products and, in particular, for television receivers. In consequence, a second Memorandum is being prepared on similar lines to that circulated early in 1959, which contained estimates of probable public expenditure over a period of years on radio and television receivers and radiograms, certain audio equipment and selected electrical household durable consumer goods. The original estimates, in common with all similar forecasts for the economy as a whole and for particular industries, did not fully anticipate the general expansion in trade which took place in 1959. Nevertheless, the conclusions arrived at as to the trend over the next few years for television sales are likely to be fulfilled, although the estimates may be subject to upward adjustment. The Council, therefore, decided to undertake a comprehensive investigation into the means of stimulating the replacement demand for television receivers and currently under consideration is the possibility of sales promotional activities and publicity by the Association and members. In this context it should be mentioned that the VHF radio demonstrations organised in conjunction with the BBC in various centres throughout the year, have received increasing support from exhibitors and local traders and have continued to prove most successful.

Comprehensive information is available within the Association on production and distribution, but there is a dearth

of reliable information on the proportion of total trading which can be accounted for by rental and relay transactions. During the latter part of 1959 and early this year, a number of announcements have been made by various manufacturing and other interests on plans for increasing television relay activities, the results of which will emerge during the ensuing years. There was little evidence in 1959 of a significant increase in the rate of growth in the number of subscribers to the television relay services.

In furtherance of its policy to liberalise trade, the Government, in addition to having taken a leading part in the formation of a limited European Free Trade Association with its long-term implications, has freed the imports of all types of domestic equipments, related components and transistors from the United States. This latter action, so far as receiving equipment is concerned, has not yet had an appreciable impact. An increase in imports was to be expected under the market conditions prevailing in 1959. The number of radio receivers, radiogram and chassis imported more than doubled, rising from 22,000 in 1958 to 58,500 in 1959. The majority of complete radio receivers brought into the United Kingdom was for battery operation and included 5,000 transistor radios received from Japan under Quota arrangements; Germany was by far the largest supplier and accounted for over 29,000 complete sets, but the volume of German chassis entering the U.K. fell from approaching 6,000 in 1958 to only 4 in 1959. On the other hand, virtually all radiogram imports were of German origin. The majority of television receivers imported came from Eire. It is impossible to predict the trends in future imports with any certainty but the position will have to be watched closely, particularly if there is any alleviation in the restrictions imposed on imports from Japan and other low-cost countries.

In anticipation of a Government enquiry into the opera-

tion and effects of individual resale price maintenance, a special Committee was appointed thoroughly to investigate the principles and practices involved. The Committee has also been asked to comment on any special factors which the abolition of resale price maintenance would entail for the manufacture and distribution of electrically-operated and technically complex goods such as ours, which require after-sales service.

Price Levels

The constant possibility of a return to inflationary conditions caused the Government, in the Autumn of 1959, to make an appeal for a price restraint. The nature of this appeal brought a published response from the Federation of British Industries, which emphasised the responsibility which rested on all sections of the industry and commerce, including the nationalised industries and the trade unions, for the maintenance of price stability.

The contribution by the radio and television set making industry to price stability and, even more important, price reductions, has been exemplary. During the 15 years since the end of the War there has been a constant reduction in the average prices of radio and television receivers and radiograms. In addition the price of these items, as expressed by the Board of Trade Wholesale Price Index which takes into account changes in quality, has also been reduced consistently. This achievement is especially noteworthy in view of the many restrictive measures imposed since the War which have caused such wide fluctuations
663 in our trade, and the increasingly complex equipments which have had to be manufactured to meet the technical changes which have taken place in sound and vision broadcasting. Compared with the base period (1954—100) for the Board of Trade Index, radio receivers now stand at 92.4, radiograms at 92.7 and television receivers at 88.4.

It is evident that such increases in productivity as have taken place have been reflected in manufacturer's prices. Whether there now remains, in comparison with other industries, sufficient opportunity for further rises in productivity to permit continuing reductions in price, will rest on factors entering into those costs of production which are largely outside the control of industry and the levels of future trade.

Television Policy

In 1955 the Council appointed the Council/Technical Policy Committee in recognition of the necessity for close co-ordination between its commercial and technical advisors in arriving at major policy decisions, and, further, to ensure that the Association's representatives on joint-industry and outside bodies were fully briefed when policy decisions were being made or implemented. The wisdom in taking this step has become increasingly evident since 1955; during the year under review and currently, it has been of paramount importance, for example, in formulating industry policy on future standards for television broadcasting.

The Postmaster-General posed two principal questions for the Television Advisory Committee to answer, the first being the suitability during the next 25 years of the present standards employed for television broadcasting in this country, and the second, whether there was good reason for the United Kingdom not to adopt a 625 lines system utilising Bands IV and V if this was recommended by the C.C.I.R. as the standard for Europe. The T.A.C. requested industry's views on these matters to assist them in making their reply.

Before any final decision is taken in regard to a change of television standards employed in the United Kingdom, it is essential to know the number of programmes to be

provided and the degree of population coverage required for those programmes. We have, therefore, continued to press the Authorities for answers to these fundamental questions, the importance of which lies in the fact that we are not simply considering the merits of a change of system to improve the line definition standards but the implications and complexities arising from such a change, both commercial and technical.

Plans already exist for accommodating three National programmes within the confines of the existing VHF Bands I and III using the present 405 lines system, so that if the decision were that no more than three programmes are required, a change of line standards would have to be judged on the grounds of the superior quality of the picture received. To introduce a 625 lines system with the present allocation of frequencies for television, would involve the use of the UHF Bands IV and V, and a prolonged period during which the same programmes would have to be transmitted on each of the two systems. The superiority of 625 lines compared with 405 lines definition, under controlled conditions, has been demonstrated. However, bearing in mind the technical hazards of UHF transmissions, it is not clear that under the variable reception conditions to be expected, the public would regard the improvement of picture definition sufficient to justify the necessarily higher price of the new equipment.

If four programmes are required, with the existing arrangement of broadcasting bands, at least one of these would need to be in UHF Bands IV and V, and it has been generally agreed that it would be undesirable to perpetuate the 405 lines system into these bands. But a broadcast service using a combination of VHF and UHF transmissions and two different line standards would, in the light of present knowledge, introduce severe complexities for the industry, the broadcasting authorities and the public—a situation

which would be highly undesirable on a permanent basis. A more acceptable arrangement might be to duplicate the two now existing television programmes and add two new programmes on 625 lines in the UHF bands, which would allow the provision of less complicated receivers, but the uncertainties of UHF reception would remain.

A careful and prolonged study of the many problems involved has proceeded throughout the year. This has included investigation into the effect on design and production of receivers under the several methods suggested for introducing new standards and additional programmes requiring the use of the UHF bands. American experience of UHF broadcasting and our own transmission tests carried out in 1957/58, indicated the nature of the increasingly
664 erratic reception conditions as higher frequencies are employed. This led to reconsideration of the possibility of obtaining for television broadcasting in the United Kingdom, additional frequencies in the VHF band as an extension of Band III. Strong representations were made in parallel to the Television Advisory Committee and the Government Departments concerned for urgent reconsideration to be given to this proposal in view of the Administrative Radio Conference of the International Telecommunication Union then taking place in Geneva. The Conference in fa confirmed the existing limits of Bands I and III for television, but some extensions above Band III have been allowed, on a shared basis with other services, to those countries who applied. The United Kingdom, owing to other commitments, did not take advantage of this concession. Nevertheless, on the hypothesis that the number of programmes required will be four, it remains industry policy to press for these to be radiated in the VHF bands, in the belief that the necessary additional frequencies could be freed within a reasonable period. On the assumptions made the interests of the public and industry alike would

be best served by the implementation of this proposal. Industry is not opposed to a 625 lines system as such, but has reason to be apprehensive about the use of the UHF Bands. If it proves impossible to provide sufficient frequencies in the VHF Bands for the additional number of programmes required, Industry would support a move to UHF Bands IV and V, where there is space for four programmes, using a 625 lines system with 8 Mc/s channels.

It is the final responsibility of industry to provide the necessary equipment, but it is equally our responsibility to ensure that the fund of expert technical and commercial knowledge and experience within industry is made available to the Government when long-term policy decisions of this kind are under consideration.

A Memorandum was submitted to the Television Advisory Committee during June, 1959, as a result of which representatives met the Committee to give oral evidence. Since that time there has been continuous activity relating to these problems, which has proved the value of our internal machinery for co-ordinating commercial and technical policy and for briefing the representatives of industry serving on the various Government Committees.

It seems likely that a Government Commission will be set up to deal comprehensively with the future of broadcasting in the United Kingdom. In this event, industry will take the opportunity to submit evidence with an emphasis on the commercial implications of any changes which may be contemplated.

* * *

672 Trading Results

It had been anticipated that trade in our products during 1959 would be at lower levels than the records achieved in 1958, partly as a result of the boom conditions in the last quarter of that year. In the event, all estimates

of disposals for our goods, other durables and many other items, were greatly exceeded, resulting in new record figures for television and radio. The abolition of all restrictions on hire purchase, credit trading and rentals in the Autumn of 1958, together with the reduction in purchase tax from 60% to 50% in the spring 1959 Budget, resulted in a continuing high level in trade throughout the year. Manufacturers' home disposals of television receivers exceeded 2¾ million units, an increase of 36% on 1958 and of radio receivers over 1½ million units, or 19% more than in the previous year. By contrast, radiogram disposals declined to 189,000 units which were 13% below those for 1958.

The total 1959 turnover, at ex-works values, of manufacturers' home disposals was more than £112 million, 29% higher than 1958; although the total f.o.b. values of export sales were 3% less than the previous year, the combined 1959 total turnover was £115½ million, an increase of some £25 million, or 27.5% on 1958.

It should be noted that in both Tables I and II, the figures shown for radio receivers (including car radio) differ from those quoted in the 1958 Report as a result of a series of amendments subsequently issued by the Ministry of Aviation.

673

TABLE I.

INDUSTRY PRODUCTION, TOTAL HOME DISPOSALS AND EXPORT SALES, 1957/8/9.

Nos. 000's

Product	Production					Total Home Disposals				
	1957	1958	1959	% Change '59 on '57	% Change '59 on '58	1957	1958	1959	% Change '59 on '57	% Change '59 on '58
				%	%				%	%
Radio Receivers (incl. Car Radio)	1,600	1,544	1,658	+ 4	+ 7	1,357	1,304	1,555	+ 15	+ 19
Radiograms	243	264	176	— 28	— 33	266	218	189	— 29	— 13
Television Receivers	1,867	1,985	2,838	+ 52	+ 43	1,816	2,020	2,754	+ 52	+ 36

Product	Export Sales*			% Change '59 on '57	% Change '59 on '58
	1957	1958	1959	%	%
Radio Receivers (incl. Car Radio)	289	237	244	−16	+ 3
Radiograms	11.3	17.0	17.1	+ 51	+ 0.6
Television Receivers	17.9	24.5	23.8	+ 33	− 3

* Export Sales are ex-factory, not ex-U. K. port.
Source: Ministry of Aviation and estimates based on BREMA Members' Returns.

TABLE II.
VALUE OF INDUSTRY TURNOVER, 1957/8/9.

£ 000's

Product	Total Home Disposals (ex-works prices)			% Change '59 on '57	% Change '59 on '58	Export Sales* (f.o.b. prices)			% Change '59 on '57	% Change '59 on '58
	1957	1958	1959	%	%				%	%
Radio Receivers (incl. Car Radio)	11,336	11,241	13,388	+ 18	+ 19	2,445	2,128	2,203	− 10	+ 3.5
Radiograms	6,839	5,518	5,436	− 21	− 1.5	332	399	358	+ 8	− 10
Television Receivers	65,775	70,428	93,367	+ 42	+ 33	651	914	789	+ 21	− 14
Total Turnover	83,950	87,187	112,191	+ 34	+ 29	3,428	3,441	3,350	− 2	− 3

Source: Ministry of Aviation and estimates based on BREMA Members' Returns.
* Export sales are despatches ex-factory, not ex-U. K. port.

• • •

674 Price Levels

The following Tables IV, V, and VI reflect the continued downward trend in real and money terms, of our products. The Wholesale Price Index "annual averages" for all three categories, provisional at time of going to press, are lower than last year; these "annual averages" differ slightly from the actual Quarterly Index figures. The index for domestic electrical appliances, as a comparison, shows little change, although individual items (fires, refrigerators, and washing machines) all show a slight increase for the year.

• • •

675

TABLE VI.
AVERAGE LIST PRICES OF TABLE TELEVISION RECEIVERS* (EXCLUDING PURCHASE TAX) BY TUBE SIZES 1955/1959.

Year	12"	14"	17"	21"
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1955	40 10 8	50 2 3	59 9 6	—
1956	37 18 4	47 18 8	55 13 0	66 17 2
1957	38 5 10	44 4 5	52 15 2	66 11 3
1958	35 15 6	42 9 6	51 8 0	65 18 6
1959	—	41 15 9	49 13 6	62 8 0

Source: BREMA Members' Statistical Returns.
*Television Receivers with radio or radiogram incorporated are not included.

676

TABLE VIII.
TELEVISION RECEIVER DISPOSALS BY MANUFACTURERS: PERCENTAGE DISTRIBUTION (BY NUMBERS) BY TUBE SIZES.

Tube Size	1953	1954	1955	1956	1957	1958	1959
	%	%	%	%	%	%	%
9" and 10"	2	*	—	3	1	*	*
12"	32	15	6				
14"	34	50	48	36	20	12	3
15" and 16"	14	5	*	*	*	—	—
17"	17	30	44	54	72	83	91
21"	—	*	2	7	8	5	6
Other	1	*	*	*	*	*	*

Source: Estimates based on BREMA Members' Returns.
* =Less than 1%.

677 Imports

The decrease that took place during 1958 in the imports of radio receivers from Germany was not maintained during 1959. Indeed, the total number of radio receivers and radiograms imported from Germany in 1959 exceeded the 1957 figure and was some 71% greater than in 1958. The majority of these radio receiver imports were in the "Other than Mains" category and would include battery/valve and transistor radios. The detailed analyses of imports for 1959 by countries, based on Customs and Excise figures, will be circulated to Members within a few weeks.

Total retained imports (from all countries) of radio receivers and chassis, and radiograms were 88% higher than in 1957 and 167% higher than 1958. Some 5,000 "Other" radio receivers were imported from Japan during the calendar year 1959 at an average price of approximately £5 7s. 6d., c.i.f. U.K. port. (Whilst this might seem to suggest that the Japanese import quota of £20,000 had been exceeded, it must be borne in mind that the quota covers the 12 months ending 31st March, 1960.) After Germany and Japan, the other main countries of origin for "Other" radio sets were: U.S.A. (2,642), Netherlands (2,177) and Italy (1,064), with about 1,000 sets each from Austria and Yugoslavia. These figures may differ a little from the final annual totals after amendments have been made. Of the 7,091 radio chassis imported this year, only four came from Germany, compared with 5,781 in 1958. Some 5,000 of these chassis imports came from the Netherlands, and nearly 2,000 from Eire. The majority of the television receiver imports were from Eire.

TABLE X.

U. K. IMPORTS OF DOMESTIC RADIO EQUIPMENT FROM GERMANY AND ALL OTHER COUNTRIES, 1957/1958/1959.

Numbers

Product	Imports ex-Germany			Total Retained Imports		
	1957	1958	1959	1957	1958	1959
Radio Receivers:						
Mains	17,443	5,159	3,542	16,490	7,066	9,376
Other	10,674	7,434	26,095	12,963	8,782	39,749
Total Radio Receivers	28,117	12,593	29,637	29,383	15,848	49,125
Radio Chassis	1,806	5,781	4	1,822	5,791	7,091
Radiograms	409	260	2,251	371	299	2,290
Radiogram Chassis	101	2	—	91	5	—
Total all radio	29,933	18,636	31,892	31,167	21,943	58,506
Television Receivers	8	23	11	6,251	209	4,690

Source: H. M. Customs and Excise.

• • •

678 Estimated Public Expenditure

A detailed Memorandum was prepared on estimated public expenditure on radio and television receivers, radio-

grams, record players and selected household durable goods during the period 1955/1961. This was circulated to Members during April, 1959.

The Memorandum was received with great interest, so much so that it has been decided to prepared a second Memorandum on similar lines; revisions of these estimates and projections over subsequent periods will probably be undertaken annually. These reports are partially dependent on the availability of official national income and expenditure and other estimates and, therefore, the second report is not expected to be completed until May, 1960. The removal of restrictions on all forms of credit trading, assisted by the reduction in purchase tax on domestic radio and television equipment from 60% to 50%, resulted in a level of trading throughout 1959 which was as unexpected for our products as for household durables generally, and the economy as a whole. However, an upward revision of traders' television receiver transactions for each of the years 1959, 1960 and 1961 will, it is believed, still show a downward trend for 1960 and 1961 with an increasing proportion of replacement purchases. In so far as this increase in sales during these three years reflects a bringing forward of purchases rather than a growth in the total market, the fall-away after 1961 can be expected to be steeper than it otherwise would have been.

It was concluded in the report that there would be a decline during the period reviewed in public expenditure on radio and television products, due largely to the high degree of household saturation achieved rather than to competition by the inclusion in household budgets of increased expenditure on other durable consumer goods. The Council decided that the television receiver replacement market would have to be closely studied and encouraged if the anticipated downward trend in television receiver sales was to be retarded.

• • •

687 Future Television Standards for the United Kingdom

As reported in the introduction to this Report, it is the Association's view that, if it is decided that four separate television programmes with near-national coverage are to be provided in the U.K., then the method which would cause the least upheaval would be to radiate them all in Band I and an extended Band III, employing 405 lines standards. This would entail a number of technical problems, notably the planning of the channels in a given area to avoid interference from local oscillators at their fundamental frequency, but the greater complications of a change of system would not arise. Nevertheless, it is recognized that it may not prove possible to achieve this aim, and preliminary consideration has been given to the problems which would arise if a service should be inaugurated in the UHF Bands.

The U.K. Administration has agreed internationally to adopt channels 8 Mc/s wide in the UHF Bands if transmissions are commenced, but all other details of the system are still undecided, although it seems most likely that it would be some form of 625 lines system.

* * *

709 The Sixteenth Annual Report
of the
British Radio Equipment Manufacturers' Association
Presented by the Executive Council to the
Annual General Meeting, 28th April, 1961

Gentlemen,

The Executive Council has pleasure in presenting to members of the Association its Annual Report for 1960.

Introduction

General

As in former years, the Council has addressed its thoughts to a very wide range of topics and, as has come to be expected, there have been several matters which have

had far-reaching implications for members and these have, of course, received special care and attention. Conditions of trading during the past year proved particularly difficult in marked contrast to the previous year when the industry reached the highest level of production and sales ever achieved. Following upon a slackening of demand for new television receivers from the peak reached in 1959, drastic readjustment of production programmes took place to reduce planned output below the maximum of which the industry was capable, despite which stocks rose to an unhealthy level. The Association's policy of compiling regular statistics of production, disposals and stocks has been most valuable during this period in enabling the Council to form an appreciation of the situation and to give advice to members from time to time. Much thought and attention has also been given to the threat to our home market by imports, and, in particular, to the allotment of an increased quota for the import of transistor and other radio receivers from Japan, which were the subject of several meetings with our sponsoring Ministry. One of the major subjects occupying the attention of the Council and its specialist Committees during the year has again been the problem of the future of television broadcasting in this country pending Government decisions on the pattern which this highly important public service is to take and whether or not a change in line standards should now be planned, together with the associated question of the introduction of colour television. The report of the Television Advisory Committee and the setting up of the Pilkington Committee on Broadcasting by the Government were conspicuous among the events which marked the year under review as one of the most active in the history of the Association.

The changing pattern of the industry, with the further grouping of manufacturing interests which occurs from time to time, seems to emphasise the need for the fullest

co-operation amongst all concerned. It is by providing a forum for the free expression of many differing views that the proper fulfilment of the Association's role in arriving at decisions of fundamental importance can best be achieved.

Trading Conditions

The economy of the country as a whole appeared, up till the end of April, 1960, to be continuing the high rate of growth accomplished in 1959. The re-introduction in April of hire purchase and rental controls, which had been foreshadowed in the Budget statement a few weeks earlier, resulted from fears that too great a strain was being placed on national resources. Output, as reflected in the index of industrial production, remained at about the April level throughout the rest of the year; exports lost ground, and showed a downward trend later in the year whilst imports stayed at a high level. The balance of payments, as a result, showed an increasing deficit during the second half of the year.

710 Within the framework of the economy as a whole the experience of individual industries differed greatly. Trading results and the reactions of the Government to representations made by our industry must be reviewed within this wider framework. It had become evident to industry early in 1960 that the boom in television receiver sales, induced in the Autumn of 1958, by the removal of all hire purchase and rental controls and subsequently stimulated by further Government measures, had ended and, indeed, that indications of a downward trend had been signalled during the last few months of 1959. The impact of the renewed hire purchase and rental controls on the radio and television industry was direct and severe. After April sales of television receivers turned sharply downward and the rate of growth of sales of radio receivers declined.

Forward production schedules for television receivers

already modified by individual manufacturers were cut back further in anticipation of lower levels of demand. Demand was, however, reduced more rapidly and to a greater extent than had been anticipated or could be compensated for by curtailment of production which cannot be cut-back suddenly in a modern mass production industry without very serious disruption. In consequence, total stocks of television receivers held by manufacturers and in the Trade rose to about 1,200,000 units by the end of August, before declining to about 1,000,000 units at the end of the year.

The increasing critical situation with which the industry was faced led to several meetings with representatives of the Ministry of Aviation and the submission through the Ministry of a Memorandum to the Board of Trade substantiating recommendations that the initial hire purchase deposit requirement should be reduced from 20% to 10% and the period of repayment extended from 2 to 3 years. The President of the Board of Trade and the Economic Secretary to the Treasury later met representatives from industry who took the opportunity to amplify the arguments and evidence in support of the recommendations made in the Memorandum and to raise other matters currently of special concern or likely to affect the future development of the industry. The degree of household penetration for television receivers, together with several other special technical and market factors which affected both television and radio receiver development and sales, made the impact of the controls on these products considerably more severe than for other household durables, the market for which had also suffered. The dual effect of a high rate of purchase tax coupled with the hire purchase controls was emphasized and it was once again shown that these measures to restrict sales on the home market could not lead to increased exports of our products, but were likely to have the opposite effect.

Towards the end of the year there was some evidence that the Government were themselves becoming aware that measures taken violently to stimulate or restrict home sales of a small sector of the whole economy—household durables and motor vehicles—neither operated as rapidly nor as successfully as a general palliative for the nation's economic ill as they had previously believed. The alternatives of a pay-roll or turnover tax are, it is understood, being re-considered, minor changes in which would operate over a much wider field and therefore produce better results than major changes in purchase tax rates or hire purchase controls. It is significant that the Board of Trade Retail Sales Index, despite heavy falls in the sales of household durables, continued to rise throughout most of the year, indicating a diversion of public buying to those products not immediately affected by the controls.

The Council took active steps to ensure that Members were kept fully informed of the increasing critical situation arising from the accumulation of television receiver stocks and called attention to the necessity for the future production plans of individual firms to be related to the probable total market during the remainder of 1960 and during the forthcoming year, i.e. for both current and new models.

The underlying strength in the home market for radio receivers due to delayed replacement demand and greater availability of battery-operated portable models was reflected in the 1959 record sales being exceeded during 1960; the proportion of battery-operated portable transistor sets rose to some 60% compared with just over 30% of the total during the previous year. Because of the much lower unit value of radio compared with television receivers their sales were much less affected by the 20% hire purchase deposit requirement and, in addition, a higher proportion is purchased for cash, whilst rentals are negligible. The num-

ber of radio receivers imported continued to rise, the increase in imports from 22,000 in 1958 to 58,000 in 1959 and 85,000 in 1960 was almost wholly accounted for by portable transistor models.

The rising trend in radio set imports from a widening number of countries was kept under close examination during the year. Members are aware of the Council's
711 activities prior to and following the signing of the Anglo-Japanese Trade Treaty 1960/1961, within which the Quota for imports from Japan of complete receivers was raised from £20,000 for 1959/1960 to £400,000. Close contact is being maintained with the Government Departments concerned to safeguard our interests during the current negotiations relating to Treaty arrangements for 1961/62.

The significance and implications on the export and home markets for our products of the establishment of the EEC in January, 1959, and the inauguration of EFTA in June, 1960, are currently under study by the Council who have in mind the possible need to authorize a survey related to our products to be undertaken by a specialist organisation. The emphasis on future U.K. exports, particularly for television receivers, may well lie to an increasing extent with the markets of Western Europe rather than with the Commonwealth and countries elsewhere which have taken the major share of our exports in the past.

The trading results for 1960, expressed in turnover at ex-works values, illustrates the reasons for the anxiety of industry during the year. Manufacturers' home disposals of television receivers in 1960 were some £30 million lower than in 1959, having fallen 36% from £94 million to just over £60 million; radio receiver home disposals rose by 22% from £13.4 million in 1959 to £16.4 million in 1960 and for radiograms disposals rose by 3 per cent from £5.4 million last year to £5.6 million in 1960. Total home disposals,

however, for all three products fell by 27% from nearly £113 million to just over £82 million at ex-works values. Exports sales at f.o.b. prices for radio and television receivers rose by 12% and 68% respectively whilst those for radiograms fell by 16%; the total value of exports rose by 22% from £3.4 million to £4.1 million. The grand total of manufacturers' turnover on the home and export markets thus fell by 26% from £116.2 million in 1959 to £86.3 million in 1960.

Television Policy

Up to mid-1960 probably the only serious consideration, outside immediate industry circles, which had been given to the future development of television in the United Kingdom, had been confined to technical aspects of the problem. The Government Television Advisory Committee, which had been asked to advise on fundamental technical problems, of television development, issued their Report in May, 1960, and within the limits of this technical investigation recommended that in circumstances where television policy required the extension of broadcasting into the UHF Bands IV and V, 625 line standards should be used and, eventually, the changeover from existing standards in Bands I and III. On a purely technical basis the Association agreed with this view, at the same time emphasising strongly that full account must be taken of the important commercial and economic aspects before any decision was taken in respect to a change in line standards.

In their Report the Television Advisory Committee did recognize that these factors being mostly outside their Terms of Reference would need to be considered before any decision was taken, a point already affirmed by the Postmaster-General in answer to a Parliamentary question.

In July, 1960, the Postmaster-General announced in Parliament the setting up of a Committee of Inquiry into the future of sound and television broadcasting, under the

Chairmanship of Sir Harry Pilkington. The Committee's Terms of Reference were widely drawn to permit a comprehensive investigation into the many and varied aspects of future broadcasting policy, including consideration of changes in line standards and the introduction of colour television. The Association was invited to make written submission to the Committee, a similar invitation being extended to the Radio Industry Council. The BREMA Council decided that after initial discussion by its specialist Committee of the policy and technical issues involved, the matter should be dealt with by the Industry Television Reception Policy Committee on which BREMA is strongly represented and the submissions made through the RIC.

A complete reappraisal of the conditions likely to attend a change in line standards was undertaken. The economic and commercial implications had already been the subject of a long series of discussions within the industry but the difficulties of reaching conclusions on this highly complicated problem were aggravated by the absence of Government policy as to the number and type of television programmes required for the future. Up to this time there had been a near balance of opinion within industry on the question of whether, in all the circumstances, it was desirable that a change in line standards as proposed should be mad at this time. There had been much public academic discussion on the desirability of changing our line standard

but it seemed that nowhere had the interest of the public
712 been fully considered. Every aspect of the many problems involved was scrupulously examined and re-examined with the weight of emphasis given to the impact which the proposed change would have on the viewing public, together with the associated effect on the industry, and the conclusions finally reached followed logically from the arguments presented. In the light of all the detailed investigations made and after weighing the advantages of

standardising on the number of lines and some other, but not necessarily all, the characteristics of the Western European CCIR standards, against the disadvantages of disrupting for a long period the whole television service and public confidence for a relatively small discernible improvement, we were convinced that it would be in the best interests of the public that television broadcasting in the United Kingdom should continue on the present 405 line standards, whatever decision was eventually made regarding the number of programmes required.

It was believed that the main interest of the public lay in the provision of additional and truly alternative programmes and the introduction of colour television. The retention of 405 line standards would enable the earliest and easiest increase in the number of television programmes at a cost to the public which would be less than would be possible if a change to 625 line standards were made requiring necessarily complex receivers. The degree of improvement in the quality of picture received resulting from a change to 625 line standards in association with UHF transmissions, even under ideal conditions, was regarded as so small as not likely to commend itself to the public and the prolonged period of upheaval and uncertainty involved would not be justified.

The Association would welcome the introduction of a colour television service in this country as and when an acceptable system becomes available and is fully in agreement with the TAC recommendation that colour should only be introduced using line standards to be ultimately adopted for monochrome transmission and therefore any decision with regard to the introduction of colour must follow a decision on line standards. With the continuing demand for the higher grade of technical personnel in electronic engineering generally and the limited amount of capacity and manpower available to be deployed on research and

development of broadcasting, it is felt desirable that these resources should be mainly concentrated on the problems associated with the introduction and development of colour television rather than on designs of complicated equipment for a change in line standards providing marginal improvement.

Much has been made of the increased export potential to be gained from adopting 625 line standards in this country but it has to be recognised that the home and export markets would always have different receiver requirements even after the re-engineering of Bands I and III to 625 lines. It is the considered opinion of many with long experience of exporting that any advantage to be gained from the production of certain common parts and circuitry in receivers would be offset by the preoccupation of industry endeavouring to meet the complicated requirements on the home market. The difficulties and hazards of exporting television receivers to highly industrial countries abroad would remain and can best be met by a stable and prosperous home market even where different line standards are involved.

The Memorandum was duly submitted to the Pilkington Committee early in January. As was expected its controversial nature attracted considerable attention and a Press Conference was held on the 16th January with the object of encouraging informed comment and avoiding any possible misunderstandings. The Memorandum, *inter alia*, set out clearly the reasoning which led to the recommendation that the 405 line standard should be maintained. The industry has the responsibility and the means of providing equipment for whatever conditions obtain as a result of Government decisions but it would be failing in its duty if it were not to point out clearly the consequences it foresees of following particular courses of action. All would wish to see improvement in television picture definition, the

only question being whether the end justified the means and in our judgment a move to 625 line standards in itself does not. It may well be that before a complete changeover could take place technical knowledge will have pointed the way to a much bigger improvement which may justify the complication and disruption that any such change entails.

• • •

717 Trading Results

The re-introduction of hire purchase and rental controls during April, 1960, accentuated the already established downward trend in television receiver home disposals and lowered the rate of growth in the market for radio receivers; the effect on radiogram disposals is more difficult to establish. Exports of radio and television receivers rose (but those for radiograms declined steeply) for reasons unconnected with the Government measures to restrict the home market, although television receiver exports might have been marginally higher in their absence.

During 1960 total retained imports of radio receivers continued to rise reaching over 83,000 units in 1960 compared with some 49,000 in 1959 and just over 16,000 in 1958. The imports of radiograms and television receivers were not significant during the year.

Manufacturers' stocks of all three products rose significantly during the year.

During 1960 total home disposals for all three products fell by 27% from nearly £113 million to just over £82 million at ex-works values. Export sales at f.o.b. values for radio and television receivers rose by 12% and 68% respectively whilst those for radiograms fell by 16%; the total value of exports rose by 22% from £3.4 million to £4.1 million. The grand total of manufacturers' turnover on the home and export markets thus fell by 26% from £116.2 million in 1959 to £86.3 million in 1960.

718

TABLE I.

INDUSTRY PRODUCTION, TOTAL HOME DISPOSALS AND EXPORT SALES, 1958/59/60.

Nos. 000's

Product	Production			% Change '60 on '58	% Change '60 on '59	Total Home Disposals			% Change '60 on '58	% Change '60 on '59
	1958	1959	1960	%	%	1958	1959	1960	%	%
Radio Receivers (incl. Car Radio)	1,544	1,658	2,260	+ 46	+ 36	1,304	1,555	1,846	+ 42	+ 19
Radiograms	264	176	244	— 8	+ 39	218	189	199	— 9	+ 5
Television Receivers	1,998	2,863	2,141	+ 7	— 25	2,032	2,776	1,817	— 11	— 35

Product	Export Sales*			% Change '60 on '58	% Change '60 on '59	Total: Home Disposals and Export Sales*			% Change '60 on '58	% Change '60 on '59
	1958	1959	1960	%	%	1958	1959	1960	%	%
Radio Receivers (incl. Car Radio)	237	244	269	+ 14	+ 10	1,541	1,799	2,115	+ 37	+ 18
Radiograms	17.0	17.1	8.4	— 51	— 51	235	206	207	— 12	+ †
Television Receivers	24.5	23.8	38.9	+ 59	+ 63	2,057	2,800	1,856	— 10	— 34

Source: Ministry of Aviation and estimates based on BREMA Members' Returns.
* Export Sales are despatches ex-factory, not ex-U. K. port.
† Less than 1%.

TABLE II.

VALUE OF INDUSTRY TURNOVER, 1958/59/60.

Value = £ 000's

Product	Total Home Disposals (ex-works prices)			% Change '60 on '58	% Change '60 on '59	Export Sales* (f.o.b. prices)			% Change '60 on '58	% Change '60 on '59
	1958	1959	1960	%	%	1958	1959	1960	%	%
Radio Receivers (incl. Car Radio)	11,241	13,388	16,384	+ 46	+ 22	2,128	2,203	2,470	+ 16	+ 12
Radiograms	5,518	5,436	5,587	+ 1	+ 3	399	358	300	— 25	— 16
Television Receivers	70,812	94,034	60,220	— 15	— 36	914	789	1,323	+ 45	+ 68
Total Turnover	87,571	112,858	82,191	— 6	— 27	3,441	3,350	4,093	+ 19	+ 22

Source: Ministry of Aviation and estimates based on BREMA Members' Returns.
* Export sales are despatches ex-factory not ex-U. K. port.

719

(TABLE II continued)

Product	Total Turnover: Home and Export* 1958	1959	1960	% Change '60 on '58	% Change '60 on '59
				%	%
Radio Receivers (incl. Car Radio)	13,369	15,591	18,854	+ 41	+ 21
Radiograms	5,917	5,794	5,887	— †	+ 2
Television Receivers	71,726	94,823	61,543	— 14	— 35
Total Turnover	91,012	116,208	86,284	— 5	— 26

* Export Sales are despatches ex-factory not ex-U. K. port.
† Less than 1%.
Source: Ministry of Aviation and estimates based on BREMA Members' Returns.

TABLE III.

U. K. RETAINED IMPORTS: DOMESTIC RADIO AND TELEVISION EQUIPMENT 1957/58/59/60.

Numbers

Product	Total Retained Imports 1957	1958	1959	1960
Radio Receivers:				
Mains	16,460	7,066	9,876	11,523
Other (incl. Car)	12,923	8,782	39,749	71,805
Total Radio Receivers	29,383	15,848	49,125	83,328
Radio Chassis	1,822	5,791	7,091	974
Radiograms	371	299	2,290	1,077
Radiogram Chassis	91	5	—	—
Television Receivers	6,251	209	4,690	495
Total: All Domestic Radio and Television	37,418	22,152	63,193	85,874

Source: H. M. Customs and Excise.

* * *

720 Manufacturers' Stocks

Estimated stocks shown in Table V are those held by manufacturers only, and exclude sets held by dealers on consignment or S.O.R. account; they are compiled from special stock returns rendered to the Association by Members, and to the Ministry of Aviation by the great majority of non-members.

Television receiver stocks rose steeply during the first half of the year from 212,000 on 1st January to some 670,000 at the end of June and declined thereafter to

480,000 by the end of the year as production was adjusted to the fall in anticipated disposals. Stocks of 17" receivers rose from 169,000 at the beginning of the year to 383,000 on 31st December, 1960, some 170,000 more than the opening stock of all types of receivers; stocks of 21" receivers more than doubled during the year to 91,000 whilst stocks of all "other" tube size receivers amounted to 6,000—almost entirely made up of 19" and 23" models. Thus, of total stocks, 17" models represented 80%, 21" models 19% and the remainder 1%.

Radio receiver stocks rose from 235,000 on 1st January to 375,000 by the end of 1960—much the same level as at the end of 1958. Transistor models accounted for 145,000 (39%) of total radio receiver stocks, receivers incorporating FM or AM/FM facilities at 80,000 represented 21% of the total stock of which only 4,000 or 1% were transistor models.

• • •

721 Television Saturation

The total number of households has probably increased from the 15,028,000 estimated in the 1951 Census of population to over 16,000,000 even allowing for houses demolished or uninhabitable. The regional analyses of households and licences, however, have been maintained on the 1951 basis as continuing to indicate satisfactorily the comparative growth of television licenses in these regions, for the purposes for which this information is used. Amendments will be made when the 1961 Census of Population results are made available. However, for forecasting future retail transactions, replacement demand and other similar purposes estimates have been made of changes in total households and allowances made for "pirates".

Each region showed a slower rate of growth in "saturation" during 1960 than in 1959; total saturation increased during these two years by 6.4% and 8.1% respectively. As the total number of households with television increases so the value of the regional comparison will decline further. Nevertheless, the actual increase in television licences provides essential information on the ratio of replacement buying to total purchases by the public. Television licenses rose by some 962,000 during the year to 11,076,000 at 31st December, 1960, and this compares with an increase of about 1.2 million during 1959.

• • •

722 Analysis of Imports

The rising trend of radio receiver imports, to which reference has already been made, and the high proportion of battery-operated receivers (86%) from a widening number of countries justifies the introduction, for the first time in these Reports, of an analysis by types and country of origin.

It can safely be assumed that the great majority of "Other" radio receivers imported are battery-operated transistor models; only a comparatively small number of car radios were imported. Imports from Germany during 1960 remain virtually unchanged compared with 1959 (3,542 mains receivers and 26,095 "other" receivers). During the first nine months of the Treaty year (31st March to 1st April) the Japanese had taken up only a small proportion of their Quota entitlement for 1960/1961.

Imports from the U.S.A. have declined slightly from 2,675 sets in 1959 to 2,129 this year and those from Italy from 4,862 to 4,705. The principal countries from which imports have risen significantly are: Austria, 10,547 (1,028); Netherlands, 10,989 (2,267); France, 3,694 (222); and Hong Kong, 3,250 (391).

723

TABLE VII.

ANALYSIS OF IMPORTS BY MAIN COUNTRY OF ORIGIN: RADIO RECEIVERS, 1960.

Numbers

Country of Origin	Radio Receivers			
	Mains	Other (incl. Car)	Total	% to Total
West Germany	3,690	26,158	29,848	35.4
Japan	—	13,545	13,545	16.1
Netherlands	—	10,989	10,989	13.0
Austria	365	10,182	10,547	12.4
Italy	2,782	1,923	4,705	5.6
France	—	3,694	3,694	4.4
Hong Kong	551	2,699	3,250	3.9
Eire	2,725	169	2,894	3.4
U. S. A.	—	2,129	2,129	2.5
East Germany	450	500	950	1.1
Switzerland	—	287	287	0.3
Czechoslovakia	500	—	500	0.6
Others	564	529	1,093	1.3
Total	11,627	72,804	84,481	100.0

Source: H. M. Customs and Excise.

Price Levels

The following Tables VIII, IX and X, reflect the position in the industry of changes in price levels. The Board of Trade Wholesale Price Index "annual averages" continue to show the downward trend that has been the pattern over the last few years for domestic radio and television equipments. The comparable Index for domestic electric appliances is, at the end of 1960, for the first time below that for previous years; only one of the individual items—fires—is higher.

As information by types of receivers obtained from Members has been altered in the last two years, comparisons on the old basis are not possible; therefore, a revised Table showing average prices (which exclude purchase tax) for radio receivers and radiograms has been introduced (see Table IX). For the most part, average prices for radio receivers tended to be lower in 1960 than in 1959; the exception was for battery-operated valve radios (although the ratio of battery sets to total disposals dropped from 13%

in 1959 to 3.5% in 1960, there was a slightly higher proportion in the £10–£12 10s. price group).

Except for twin-channel console models for AM reception only, the average prices of all console radiograms were reduced during the year; average prices of table radiograms rose.

The average prices of all television receivers, analysed by tube sizes, were lower. Disposals of 19" and 23" models were made towards the end of the year, and average prices for these, too, have been included for purposes of future comparison.

• • •

724.

TABLE VIII.

BOARD OF TRADE WHOLESALE PRICE INDEX ANNUAL AVERAGES 1957/58/59/60.

Base: 1954=100.

Product	1957	1958	1959	1960
Radio Receivers	95.0	93.3	92.4	92.2
Radiograms	93.1	93.6	92.7	92.5
Television Receivers	90.8	89.6	88.4	88.1
Gramophone Records	107.9	110.7	110.7	110.9
Domestic Electrical Appliances	102.4	104.1	104.2	103.1
Vacuum Cleaners	106.1	108.4	105.2	104.5
Cookers	111.8	114.4	114.0	111.6
Fires	105.1	103.5	104.5	105.6
Refrigerators	96.1	97.1	97.9	95.3
Washing Machines	98.5	100.6	102.9	102.9

Source: Board of Trade.

TABLE IX.

AVERAGE LIST PRICES (EXCLUDING PURCHASE TAX) 1959/60 RADIO RECEIVERS AND RADIOGRAMS.

Product	Average List Price (excl. Purchase Tax) AM only 1959	AM only 1960	FM and AM/FM 1959	FM and AM/FM 1960
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Radio Receivers—				
Valve—Mains	10 2 6	10 3 0	15 18 0	15 10 0
Mains/Battery	12 17 6	12 0 6	—	—
Battery	9 1 6	9 10 6	21 17 6	24 19 6
Transistor only	15 12 6	14 4 6	—	21 7 0
Radiograms—				
Single Channel—Table	21 13 0	22 11 6	28 14 6	26 3 0
Console	41 11 6	32 11 6	44 3 6	39 5 0
Twin Channel —Console	51 10 6	64 11 0	62 1 0	57 3 0

Average Prices have been taken to nearest 6d.
Source: Estimates based on BREMA Members' Returns.

TABLE X.

AVERAGE LIST PRICES (EXCLUDING PURCHASE TAX), 1957/58/59/60 TELEVISION TABLE RECEIVERS BY TUBE SIZES.

Year	14"	17"	19"	21"	23"
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1957	44 4 6	52 15 0	—	66 11 6	—
1958	42 9 6	51 8 0	—	65 18 6	—
1959	41 16 0	49 13 6	—	62 8 0	—
1960	41 4 6	48 8 0	51 1 0	57 19 0	63 3 6

Average Prices have been taken to nearest 6d.
Source: Estimates based on BREMA Members' Returns.

756 The Seventeenth Annual Report of the British Radio Equipment Manufacturers' Association

Presented by the Executive Council to the Annual General Meeting, 26th July, 1962

Gentlemen,

The Executive Council has pleasure in presenting to members of the Association its Annual Report.

Introduction

General

The period covered by this Report has proved to be one of the most difficult in the history of the industry and at the same time one of the most strenuous in the annals of the Association.

On the national front the industry has felt the effects of the Government's efforts to contain the inflationary pressures which began once again to loom ominously in 1961 and resulted in the imposition of the Pay Pause, the raising of the Bank Rate, the 10% surcharge in Purchase Tax rates and also the taking of the power to impose a special tax on labour, which, in the event, was not invoked.

The psychological effect rather than the severity of these

measures on the home market for television, already largely dependent on replacement buying and beset by doubts and uncertainties pending the outcome of the Pilkington Report, was sufficient to cause a very serious setback to the industry, from which it will take some time to recover. The fact that sales of radio receivers in the form of transistor portable and personal sets continued to expand, welcome as this was, could not from the point of view of the industry as a whole go very far towards making good the deficiency on television. Moreover, the relatively flourishing market for these small radio receivers was being increasingly threatened by the rapidly growing importations, mainly from low-cost countries.

In international affairs the question of Britain joining the European Economic Community gathered importance as we moved towards a decision—which it was understood was likely to be reached in the latter part of 1962. Provided reasonable terms can be arranged which would safeguard the essential interests of the Commonwealth and our own agricultural industry, there is a strong expectation that Britain's application to become a member of the EEC will be accepted, thereby making her a partner in the Common Market arrangements. Britain's entry into the EEC will bring drastic changes, both political and economic, the exact nature of which cannot be predicted at this stage. The implications for our own industry are very great indeed, presenting not only a serious challenge but also offering us great opportunities if we can become fully competitive.

Against this somewhat sombre background your Council has been actively engaged in giving attention to a wide range of topics, including several salient matters to which the weight of effort has had to be devoted. Altogether, this year has produced problems of outstanding significance

for the future of the industry as a whole and for the Association in particular.

757 Trading Conditions

The Council have continued to take active steps to ensure that Members were kept fully informed of the stock position of both television and radio receivers and called the attention of Members to the necessity for careful forward planning by individual firms and the relationship between these plans and the estimates of the total market during the current and subsequent years. On a declining market for television receivers manufacturers' stock decreased from 480,000 at the beginning of 1961 to 181,000 by the end of the year, a fall of nearly 300,000 (62%). On a strongly rising market for radio receivers, stocks increased by 58,000 (14%) during 1961 to a total of 460,000, the increase being accounted for entirely by transistor radios, whilst stocks of valve radios both AM and those incorporating FM facilities fell sharply.

The trend observed during 1960 for rapidly increasing imports of radio sets from an ever widening number of countries continued into 1961 and again into the current year. As in the case of home productions, transistor radios predominated accounting for some 90% of total imports. There has, however, been a very considerable change in the proportion taken by individual countries of total imports as, for example, in 1960 Germany was the largest, taking 35.4% (30,000) but has declined to third position, accounting for only 9% in 1961, although the total number of sets has fallen to only 25,000, followed closely by The Netherlands and France. By far the greatest volume of imports during 1961 came from Hong Kong, 105,000 (37.3%) amounting to more than the total imports from all sources during 1960. The rising trend in radio imports has been brought to the notice of the Government with

special reference to the proposed Anglo-Japanese Long Term Trade Treaty and the bi-lateral annual quotas, in order to safeguard our interests both in direct imports from Japan and indirect imports through third countries including Hong Kong which incorporate a high proportion of Japanese components. As a result of the greater quota granted, imports from Japan have increased from rather more than 13,000 in 1960 to over 58,000 in 1961, making them the second largest in total and the largest source of non-transistored radio receivers.

As in previous years representations were made to the Ministry of Aviation, and through them to the Treasury and the Board of Trade, during 1961 and prior to the 1962 Budget, recommending substantial reductions in the level of purchase tax and in the initial deposit and re-payment period for hire purchase transactions. During 1961, however, although the period of re-payment for hire purchase transactions was lengthened from 24 to 36 months the initial deposit requirement remained the same and in the "Little Budget" of July, a 10% surcharge was added, raising the purchase tax rate applicable to our products from 50% to 55%. The Chancellor of the Exchequer subsequently reduced the rate on domestic radio and television equipment to 45% during his April, 1962, Budget.

Reviewing the trading results for 1961, the year opened with the industry facing a critical situation due to an anticipated fall in the television receiver market for a number of reasons specific to this product, including the uncertainty created in the public mind by the then current enquiry of the Pilkington Committee and the sheer weight of over a million receivers in stock. In consequence, due in part to further measures by the Government to restrict consumer expenditure in general, manufacturers were forced to offer exceptional and uneconomic terms to the Trade and thence to the public in an attempt to offset the fall in unit sales.

Nevertheless, to reduce stocks to more manageable proportions, production of television receivers had to be drastically reduced to the unprofitable level of 1.25 million sets during the year compared with 2.2 million in 1960 and 2.9 million in 1959. The sharp reduction in television turnover dominated the trading results for 1961 and outweighed the considerable increase in radio receiver disposals. Measured at ex-works values and f.o.b. prices, manufacturers total turnover for 1961 was £77.6 million, a fall of £9.1 million in 1960 and £38.6 million less than in 1959. Home disposals of television receivers, £48.9 million in 1961, were £11.3 million less than in 1960 or a fall of 19%; radio receiver home disposals £20.1 million in 1961 by contrast increased 20% on the 1960 figure of £16.8 million and for radiograms disposals fell marginally to £4.8 million in 1961 from £5.7 million. Total home disposals for all these products having fallen from £112.9 million in 1959 to £82.7 million in 1960 decreased by a further £8.9 million (11%) to £73.8 million during 1961. Export sales for television receivers increased by 15%, whilst those for radio receivers and radiograms fell by 18% and 14% respectively; the total value of exports at f.o.b. prices for 1961 was £3.8 million compared with £4.1 million in 1960 and £3.4 million in 1959.

758 Television Policy

Outstanding among the many absorbing problems of recent years has been that concerned with the future development of broadcasting in the United Kingdom and, in particular, the question of the change of television standards. The existence of the Pilkington Committee on Broadcasting, set up in 1960 with Terms of Reference which included consideration of the commercial aspects of a change in line standards, cast its deep shadow over the major part of the industry during a critical period of close on two years. Speculation on the outcome of the Committee's delibera-

tions ran high and frequent Press comment, which could be expected on a subject of such universal interest, only served to accentuate the difficulties and uncertainties in the minds of consumers.

The industry, however, applied itself to the problem of the design, production and marketing of television receivers capable of being adjusted to meet any foreseeable changes in future television broadcasting techniques and additional programme services which might come about during the life of the set. In the absence of decisions on line standards, the method of changeover if a new standard were adopted, and the number of programmes to be catered for, each individual manufacturer had to approach the problem on the basis of his own assessment of the position, a situation which could only be resolved once the Government's decision had been taken on the recommendations of the Pilkington Committee.

The Report of the Pilkington Committee was published on 27th June, 1962, and the Government White Paper which was issued on the 4th July, stated ". . . it is most desirable to reach early conclusions on some questions, including the vital technical ones, in order to lessen or remove the present uncertainty and doubt which is having a depressive effect on the broadcasting medium and the industries which serve it."

The most important Government decision from the industry point of view was that new programmes would be introduced in the UHF Bands, using 625 line standards. This, at least, will enable the industry to proceed with its main task of providing receiving equipment of the right quality and at the right price to meet the declared policies. But it is essential to the industry that the additional services authorised by the Government should commence at the earliest possible date and cover the whole of the country with the least possible delay.

Among the items on which no firm Government decision has been taken are (i) the method of changeover from the old to the new line standard (either by duplication in the UHF Band of existing programmes or by switchover in the VHF Bands at some future specified date), and (ii) the system of colour television to be adopted—although it is proposed to authorize the BBC to introduce colour as part of their second programme which will be broadcast in the UHF Bands on the new line standard. The relative merits of the two competing colour systems—NTSC and SECAM—are at present under international technical investigation by the CCIR, and it would obviously be unwise for Britain to commence a colour service without some assurance that the system used would be the standard adopted by the rest of Europe.

• • •

763 Trading Results

In July, 1961, the Chancellor increased the Purchase Tax rate on our products by a 10% surcharge, raising the rate chargeable to 55%. Although it is difficult to assess the effect that this increase might have had on the adverse conditions already existing for the sale of television receivers, disposals by manufacturers during 1961 on the home market amounted to only 1½ million sets, 300,000 or 17% less than in the preceding year. The high level of stocks held by manufacturers (480,000) and by traders (523,000) amounting in total to over a million receivers, necessitated a cut in production in 1961 to 1¼ million, 41% less than in 1960. Both production and home disposals of radio receivers continued to rise steeply during 1961 due to the increasing demand for transistor radios. For exports, however, the position was reversed; exports of radio receivers decreased by 65,000 during the year, but television receivers showed a satisfactory increase of 6,000 or 16% from 38,500 to 44,600 in 1961.

In spite of the increase in radio receiver disposals, total

home turnover for 1961 was £73.84 million, a decrease of nearly £9m. on 1960 and £39m. less than in 1959. The f.o.b. values of total exports was 7%, or nearly £300,000 less than in 1960, the increase in television receiver exports not quite offsetting the decrease in those for radio receivers and radiograms. The combined turnover of home and export sales of all products fell by 11% on 1960, from £86.8m. to £77.6m.

The retained imports of radio receivers increased by nearly 191,000 in 1961, totalling 274,300 for the year, the c.i.f. value rising to £1,357,000, an increase of £764,000.

NOTE: In Tables I and II the figures relating to the production and home disposals of both radio receivers and radiograms for the years 1960 and 1961, are BREMA estimates. The 1960 figures have been revised since the publication of the last Annual Report.

764

TABLE I.

INDUSTRY PRODUCTION, TOTAL HOME DISPOSALS AND EXPORT SALES, 1959/60/61.

Nos = 000's

	Production					Total Home Disposals				
				% Change					% Change	
Product	1959	1960	1961	'61 on '59	'61 on '60	1959	1960	1961	'61 on '59	'61 on '60
				%	%				%	%
Radio Receivers (incl. Car Radio)	1,658	2,824	2,831	+ 71	+ 22	1,555	1,901	2,576	+ 66	+ 36
Radiograms	176	254	170	— 4	— 33	189	207	189	nil	— 9
Television Receivers	2,863	2,141	1,256	— 56	— 41	2,776	1,817	1,509	— 46	— 17

	Export Sales*					Total: Home Disposals and Export Sales*				
				% Change					% Change	
Product	1959	1960	1961	'61 on '59	'61 on '60	1959	1960	1961	'61 on '59	61 on '60
				%	%				%	%
Radio Receivers (incl. Car Radio)	244	370	205	— 16	— 24	1,799	2,171	2,781	+ 55	+ 28
Radiograms	17.1	8.5	7.9	— 54	— 7	206	216	197	— 4	— 9
Television Receivers	23.8	38.5	44.6	+ 87	+ 16	2,800	1,856	1,554	— 45	— 16

* Export Sales are despatches ex-factory, not ex-U. K. port.
Source: Ministry of Aviation and BREMA estimates.

TABLE II.

VALUE OF INDUSTRY TURNOVER, 1959/60/61.

Value = £ 000's

Product	Home Disposals (ex-works value)					Export Sales* (f.o.b. value)				
	1959	1960	1961	% Change '61 on '59	% Change '61 on '60	1959	1960	1961	% Change '61 on '59	% Change '61 on '60
				%	%				%	%
Radio Receivers (incl. Car Radio)	13,888	16,797	20,149	+ 51	+ 20	2,203	2,472	2,038	— 8	— 18
Radiograms	5,436	5,696	4,838	— 11	— 15	358	304	262	— 27	— 14
Television Receivers	94,084	60,220	48,853	— 48	— 19	789	1,315	1,507	+ 91	+ 15
Total Turnover	112,858	82,713	73,840	— 35	— 11	3,350	4,091	3,807	+ 14	— 7

765

Product	Total Turnover: Home and Export*			% Change '61 on '59	% Change '61 on '60
	1959	1960	1961	%	%
Radio Receivers (incl. Car Radio)	15,591	19,269	22,187	+ 42	+ 15
Radiograms	5,794	6,000	5,100	— 12	— 15
Television Receivers	94,823	61,535	50,360	— 47	— 18
Total Turnover	116,208	86,804	77,647	— 33	— 11

* Export sales are despatches ex-factory, not ex-U. K. port.
Source: Ministry of Aviation and BREMA estimates.

TABLE III.

U. K. RETAINED IMPORTS: DOMESTIC RADIO AND TELEVISION EQUIPMENT, 1958/59/60/61.

Numbers

Product	Total Retained Imports			
	1958	1959	1960	1961
Radio Receivers:				
Transistored	8,782	39,749	71,805	245,915
Other	7,066	9,376	11,523	28,404
Total Radio Receivers	15,848	49,125	83,328	274,319
Radio Chassis	5,796	7,091	974	2,314
Radiograms	299	2,290	1,077	2,560
Television Receivers	209	4,690	495	775
Total: All Domestic Radio and Television	22,152	63,196	85,874	279,968

Note: For the purpose of comparison, it has been assumed that non-mains sets imported during 1958/59/60 were mainly transistored sets.
Source: H. M. Customs and Excise.

• • •

766 Manufacturers' Stocks

Table V shows stocks held by manufacturers only, and excludes stocks held by dealers on consignment or S.O.R. account. They can be taken as "actual" stocks rather than "estimates", as they have been compiled from special end-year returns made by Members to the Association and by virtually all non-Members to the Ministry of Aviation who have once again readily co-operated in this enquiry.

A careful investigation with the firms concerned, as in previous years, between the stock figures revealed by the special industry annual stock-take and the "derived stocks" for the end of the year has enabled accurate final stocks to be obtained and adjustments, as necessary, to be made to the annual statistics of production, home and export disposals.

In Table V below comparisons of 1961 stocks are made with those for 1959 and 1960; it will be seen that total radio receiver stocks increased by 58,000 (14%) during 1961 to 460,000; valve type receiver stocks, however, were halved, falling to 121,000 whilst those for transistor receivers doubled, rising by 186,000 to 339,000. Radiogram stocks fell from 61,000 at the end of 1960 to 36,000 at the end of 1961, a decrease of 41%. Television receiver stocks decreased by 62% or 300,000; the principal reduction was in the class "up to and including 17″ tube size" which fell from 385,000 in 1960 to 21,000. Television stocks of 19″ and 23″ receivers—125,000 and 30,000 respectively are shown for the first time in 1961; direct comparison with earlier periods is not possible but combined stocks of 19″ and 23″ receivers amounted to not more than 5,000 at the end of 1960. It will be of interest that television receivers with 19″ tubes accounted for 69% of the total stocks held at the end of 1961.

• • •

767 Television Saturation

The television saturation of households, shown in Table VI, continues to be based on the number of households calculated from the 1951 Census of Population; this has been done in order to maintain the approximate regional trend of growth previously established.

The actual combined radio and television license increase in 1961 was 581,500, compared with 961,585 the previous year. The percentage of overall saturation, measured on the above basis has, therefore, only increased from 73.7% at 31st December, 1960, to 77.6% a year later. Eight of the fifteen regions listed show a household saturation of over 80%, five over 70%; the Greater London area shows a saturation of 68.2%; Northern Ireland shows the lowest saturation at 42.9%. These regional saturation figures have further declined in significance but still provide some guide as to the distribution of replacement buying.

The Preliminary Report on the 1961 Census of Population gives estimates of the number of private households in England and Wales as 14.7 million (it states, however, that these figures are especially vulnerable to re-scrutiny); to this must be added an estimate for Scotland, Northern Ireland, the Isle of Man and Channel Isles. The revised estimate on the total number of households is, therefore, about 16.6 million as against the 15.028 million estimated ten years ago. Television saturation of households, based on this new estimate, is reduced to approximately 70% overall instead of the 77.6% quoted as the aggregate of the regional totals on the 1951 Census results. However, when forecasting future retail transactions, replacement demand and for use in similar exercises, estimates are used incorporating changes in total households and allowances made for pirates.

• • •

769 Price Levels

As information obtained from Members on types of radio receiver models was on a different basis to that for previous years, it has been necessary to amalgamate the types so as to give a comparison between valve only radios and those with transistors, for both AM and FM or AM/FM. It will be seen from Table VIII that, with the exception of valve radios with either FM or AM/FM reception facilities, the average list price for 1961 is considerably lower than for 1960.

Radiogram average list prices, on the same basis as last year, also showed a downward trend, with the exceptions of single channel console models with AM only reception, and twin channel console models with FM or AM/FM reception.

The average list price of television receivers (Table IX) for all tube sizes showed a reduction on the 1960 averages, thus maintaining the lower price trend previously established.

• • •

770

TABLE IX.

AVERAGE LIST PRICES (EXCLUDING PURCHASE TAX), 1958/1959/1960/1961 TELEVISION TABLE RECEIVERS*, BY TUBE SIZES.

Tube Size	1958	1959	1960	1961
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
17"	51 8 0	49 13 6	48 8 0	46 1 6
19"	—	—	51 1 0	49 8 0
21"	65 18 6	62 8 0	57 19 0	55 18 6
23"	—	—	63 3 6	61 6 6
Others	42 9 6	41 16 0	41 4 6	42 18 6

Note: Average Prices have been taken to the nearest 6d.
* Television Receivers with Radio or Radiogram incorporated are not included.
Source: Estimates based on BREMA Members' Returns.

• • •

781 One aspect of the change to any new line standards is the method to be adopted of introducing them and any new programmes which may be inaugurated. It was

originally believed that, in addition to any new UHF programmes, it would also be necessary to duplicate the existing 405 line programmes in Bands IV and V. However, the ITA has suggested that this duplication is not necessary and that, if proper preparations were made beforehand, the whole of the BBC and ITA services in Bands I and III could be changed from 405 line to the new standard overnight. The technical aspects of this plan have been examined both by BREMA and the Technical Sub-Committee of the TAC: advantages and disadvantages are seen in both methods of changeover, and no final decision has, as yet, been taken.

• • •

801 **The Eighteenth Annual Report of the British Radio Equipment Manufacturers' Association**

Presented to members in Annual General Meeting, 20th May, 1963

Introduction

General

The Association's activities cover a wide field but, as in past years, there have been several matters of paramount importance which have required a special concentration of effort. Internally, the newly-constituted President's Committee and Council took office and subsequently the Committee structure serving these two governing bodies was reorganised. Due to reduced turnover and profitability in the industry, stringent economy in running the Association was considered essential; on a re-appraisal of the Association's work a severe pruning of expenditure has been effected and the utmost economy introduced consistent with maintaining the minimal services considered absolutely essential. Externally, by far the most important

event was the publication of the Pilkington Report and the accompanying White Papers and the steps taken to implement the Government's decisions. A further reflection of the continued reduction in the industry's turnover and the special situation relating to the manufacture and marketing of television receivers was the decision not to hold a National Radio Show during 1963. However, as an alternative to the holding of a national exhibition, the organisation of a sales promotion campaign for television and radio receivers was put in hand which will be geared particularly to developments in broadcasting in the UHF Bands.

Representations continued to be made and evidence given to the Government concerning the negotiations for a Commercial Treaty with Japan; every effort was made to safeguard the British transistor radio industry against imports from Japan, whether direct or indirect via third countries, at prices with which neither the U.K. and other Western European countries nor the United States could possibly compete.

Together with other Associations in the electronics field evidence was given to the National Economic Development Council, in which industry complied with the request to make detailed prognostications covering the next five years.

• • •

802 Trading Conditions

The economy of the country as a whole suffered during 1962 from the restrictive policies introduced in 1961 to deal with the then serious balance of payments situation and the threat of inflation due to rising wages. Not until towards the end of the year were positive steps taken to encourage expansion of the economy; the consumer electronic industry was affected not only by the general malaise but was additionally burdened by problems specific to it.

Uncertainty as to the future of television broadcasting which caused the further steep decline in the market for television receivers during 1961 brought virtual stagnation at these lower levels in the first half of 1962. Removal of the basic uncertainties early in the second half of the year could of their nature have little short-term effect on improving the market which remained depressed for the remainder of the year.

The nominal reduction of purchase tax from 55 per cent to 45 per cent in April 1962 had no tangible effect on sales; the subsequent reduction during June of the hire purchase deposit from 20 per cent to 10 per cent which could be expected to have little or no effect on sales of radio receivers, had no more than a marginal effect in increasing sales of television receivers due to the hiatus in trade resulting from the causes mentioned above.

The market for British radios continued at a high level but slightly lower than 1961 and was adversely affected by the extremely low prices of receivers imported from Hong Kong and from Japan; the value of retained imports of transistor radios during 1962 rose by 74 per cent during the year and amounted at c.i.f. values to nearly £2,000,000.

Combined turnover on the home and export markets for radios, radiograms and television receivers during 1962 (£77.3m) remained virtually unchanged on 1961 (£77.6m) but some £9.5m less than in 1960. Compared with 1961 the value of radio receiver disposals fell by 5 percent to £19.1m on the home market and 37 per cent to £1.3m on the export market; for television receivers home disposals were 3 per cent less at £47.4m whilst exports more than doubled to £3.5m.

Future Broadcasting Policy

A new chapter in the history of British broadcasting was begun in 1962 with the release of the long awaited report

of the Pilkington Committee and two subsequent White Papers which gave an indication of the Government's intentions in regard to future broadcasting policy. After years of waiting which spelt stagnation and near disaster for the industry, the 'green light' was given for the go-ahead on the introduction of 625-line television standards in the UHF Bands, with one additional programme for the BBC. The industry has consistently advocated the provision of the maximum number of television programmes, restricted only by the number of channels available. The Government's decision to allow only one programme in the
803 UHF Bands at this stage was therefore a matter of regret, since the UHF Bands are capable of accommodating four national programmes or one further new programme in addition to the duplication of the existing 405-line programmes if this method is adopted for the change-over of line standards.

After suffering severely from a lack of decision on the question of future technical standards, it was natural that the industry and the public should be eager for the earliest possible introduction of the new programme. The immediate concern is the initial delay in bringing into operation the first two main 625-line transmitters (London and Birmingham) and we will continue to urge the earliest possible commencement of the new services.

• • •

805 Economic and Statistical

General

The earliest economic indications during 1962 gave hope for an increase in production and in exports; for industrialists, however, 1962 was in general to prove a year of frustration. The earlier promise of better things was not fulfilled and discussion centered not on whether economic expansion was desirable but on whether it was happening.

Here there was a divergence between the comparative optimism of the Government and the continued pessimism of business men. The 1962 Budget had been framed to safeguard the economy against the risk of excess demand at home directing resources away from exports. The Government's view had to be changed in face of the mounting evidence during the latter part of the year, by when it became clear that demand had in fact fallen to a point where serious under-utilisation of industry's resources was taking place. The realisation of this led to a welcome move towards dismantling the structure of restraints which had been imposed during 1961.

• • •

806 STATISTICS

Section A: Trading Performance (Tables I to V)
Production, Home Disposals and Exports.

The conditions under which the consumer electronic industry operated during 1962 have already been outlined earlier in this Report; the following alleviations in the restraints imposed on the sale of BREMA products took place—purchase tax was reduced during April from 55 per cent to 45 per cent (as from 1st January, 1963 to 25 per cent) and the deposit requirement for hire purchase trade reduced from 20 per cent to 10 per cent in June.

Summaries of industry trading performance for 1962, compared with the two preceding years, are shown in Tables I and II. Both production and home disposals of radio receivers at 2.8m and 2.6m units were only a little below the 1961 level, being 2 per cent and 1 per cent less respectively. Export sales, 149,000, however, showed a marked decline, being 27 per cent less than 1961 and 45 per cent less than 1960. Production of television receivers, 1.46m units, increased by 16 per cent on the 1961 level; home disposals, 1.4m on the other hand, decreased by 9 per cent but export sales of 112,000 units showed a satisfactory

increase of 151 per cent, i.e. exports were some two and a half times greater than in 1961.

The total home turnover (ex-Works prices) for all three BREMA products during 1962 was £72.2m., some £1.6m. less than 1961 and £10.5m. less than 1960. To offset this, however, total export sales during 1962, £5.06m. f.o.b., was £1.2m. more than 1961. The combined home and export turnover for 1962 was, therefore, only £366,000 less than the 1961 total, but £9.5m. less than 1960.

Manufacturers' Stocks

The figures for 1960/61/62 quoted in Table III are stocks of U.K. produced sets held by manufacturers, and exclude stocks held by dealers on consignment or S.O.R. account. They have been compiled from special returns made by Members and, through the co-operation of the Ministry of Aviation, by manufacturers outside the Association. They are, therefore, as near 'actual' as is possible.

The total number of radio receivers of all kinds held in stock by manufacturers at the end of 1962 was 528,000, a net increase of 68,000 on the 1961 figure; within this 'net' figure stocks of transistor radios actually increased by 158,000 whilst stocks of valve sets decreased by 90,000. The proportion of transistor radios to the total stocks was 94 per cent of which nearly two-thirds were of the portable type.

Radiogram stocks fell by 10,000 during 1962 to a total of 26,000; the main decline lay in the field of FM and AM/FM receivers with twin channel amplification.

Television receiver stocks showed the least movement, being only 29,000 less than the previous year-end stocks and the majority of this fall lay in receivers other than those with 19" and 23" tubes.

It is stressed that all stock figures are for new sets held by manufacturers; this has special significance for televi-

sion as considerable stocks of used receivers may be held by, for example, manufacturers with rental and relay interests.

Retained Imports

As the value of retained imports has increased considerably during 1962 and in total now take an important share of the home market, additional information to that shown in previous years has been given in Table IV; comparisons are also shown with imports during 1960/61.

Imports of radio receivers have increased steadily during the last three years, most markedly for transistored radios (for detailed analysis by country of origin see Table VI). The c.i.f. value of transistored radios reached nearly two million pounds in 1962, an increase of 74 per cent on the 1961 total of £1.15m. In actual numbers, the increase was even higher, the 1962 total of 529,300 being an increase of 115 per cent on the 1961 figure, 245,900.

Retained imports of radiograms rose from £81,000 in 1961 by £95,000 to £176,000 in 1962. This was due largely to imports from West Germany, which increased by £91,000, and from Japan which rose by £14,000; these increases were in turn offset by a fall in imports from the U.S.A. of approximately £7,000.

Retail Transactions

Estimates of total retail transactions (which include rental and relay transactions), with quarterly and annual comparisons for the years 1960/1962, are shown in Table V.

Transactions of radio receivers continued to rise, reaching a total of 2,861,000 in 1962, an increase of 12 per cent on the 1961 figure of 2,552,000, and 68 per cent more than in 1960 (1,701,000).

Radiogram transactions in 1962, 214,000, were slightly higher than the 1960 and 1961 levels. There are reasons

for believing that actual radiogram transactions may have been even higher during recent years than the figure estimated; it is thought that information on manufacturers' supplies to the trade (on which the estimates of retail transactions are largely based) may be incomplete.

Television receiver transactions, on the other hand, decreased from 1,747,000 in 1961 to 1,482,000 in 1962 (15 per cent); whilst the fall from 1,924,000 in 1960 was even greater (23 per cent).

Section B: Detailed Analysis of Selected Information (Tables VI to XI)

Radio Receiver Imports—Analysis by Country of Origin

Table VI analyses imports of transistored and 'other' radio receivers from the principal countries of origin; it should be noted that the totals differ from those for 'retained' imports contained in Table IV, the latter having been adjusted by the total number of sets re-exported. This adjustment cannot be made country by country as the original source of re-exported equipments is not known.

The 1962 imports of radios by numbers have been listed in descending order of magnitude by countries and are compared with those for 1961 from the same sources. Comparative c.i.f. values, together with average prices ruling for 1961 and 1962 are also shown for transistored radios, providing a comprehensive picture of the import situation. Imports of transistored radios from Hong Kong during the year (363,625) were more than three times the 1961 total; it is specially noteworthy that there was a decrease in the average price of these radios from £3 12s. 2d. in 1961 to £2 12s. 4d. in 1962. With the exception of receivers from Italy, the average prices of which fell from £4 6s. 5d. to £3 12s. 4d., the average price of transistored radios from all other countries listed, increased in 1962.

The number of 'other' radio receivers imported increased

from 29,487 in 1961 to 33,171 in 1962; 44 per cent of these 1962 imports came from the 'Iron Curtain' countries, mainly Hungary and Poland.

The combined value of imported transistored and 'other' radio receivers totalled £2,308,000 in 1962, an increase of nearly £900,000 over 1961.

Comparative List Prices (excluding Purchase Tax) 1960/61/62

Table VII gives average prices of radio receivers and radiograms by types. In the case of radiograms, it is possible only to show for 1962 one average price for all single channel models, as no information was separately collected during 1962 on table and console models.

The average prices of valve type radio receivers have increased in 1962 both for AM and VHF/FM models, the latter from £16 0s. 6d. to £17 6s. 0d. The average price 808 of transistored radios with AM only reception, by far the greatest proportion of total receivers, decreased from £12 5s. 0d. in 1961 to £11 9s. 6d. in 1962, whilst the average price of transistored radios incorporating VHF/FM rose from £18 17s. 0d. in 1961 to £20 12s. 0d. in 1962.

Table VIII, showing comparative average prices for 1960/61/62 of television receivers analysed by tube sizes, is on a different basis from the otherwise apparently similar tables given in previous Annual Reports (the original series was for table models only, the current series is for both table and console models, separate information on which is no longer obtained). The changing proportions of console to table models as between one year and another could cause changes in average prices which might obscure more significant price movements. Subject to this reservation, it can be seen that there is virtually no change in the average price of 17″ and smaller tube size models; a small rise in those with 19″ and 23″ screens, and a slight reduction in the residual item, models with 'other tube sizes'.

Television Receivers: Percentage Distribution by Tube Sizes

Table IX shows television receiver percentage distribution by tube sizes, for production, home disposals and year-end stocks. Comparisons for the years 1960, 1961 and 1962 show that the proportion of both production and home disposals represented by the group 'up to and including 17"' has fallen away from over 80 per cent in 1960 to less than 5 per cent in 1962. In the same way the group 'other tube sizes' (consisting mainly of 21" models) has fallen from some 15 per cent in 1960 to 1 per cent of the total in 1962. Production of 19" models has risen from 78 per cent in 1961 to 83 per cent of the total in 1962, whilst the proportion of home disposals has risen more steeply from 57 per cent to 87 per cent over the same period. Production of 23" models rose from 8 per cent in 1961 to 12 per cent of the total in 1962, and home disposals doubled from 5 per cent to 10 per cent.

• • •

810 TABLE I.

INDUSTRY PRODUCTION, TOTAL HOME DISPOSALS AND EXPORT SALES, 1960/61/62

Nos.—000's

Product	*Production*					*Total Home Disposals*				
	1960	1961	1962	% Change '62 on '60	% Change '62 on '61	1960	1961	1962	% Change '62 on '60	% Change '62 on '61
Radio Receivers *including Car Radio*	2,324	2,831	2,774	+19	— 2	1,901	2,576	2,555	+34	—1
Radiograms	254	170	203	—20	+19	207	189	202	— 2	+7
Television Receivers	2,141	1,256	1,463	—32	+16	1,817	1,509	1,378	—24	—9

Product	*Export Sales**					*Total Home Disposals and Export Sales**				
	1960	1961	1962	% Change '62 on '60	% Change '62 on '61	1960	1961	1962	% Change '62 on '60	% Change '62 on '61
Radio Receivers *including Car Radio*	270	205	149	—45	—27	2,171	2,781	2,704	+25	—3
Radiograms	8.5	7.9	7.9	— 7	nil	216	197	210	— 3	+7
Television Receivers	38.5	44.6	112	+191	+151	1,856	1,554	1,490	—20	—4

*Export Sales are ex-factory not ex-U.K. port

TABLE II

VALUE OF INDUSTRY TURNOVER, 1960/61/62

Value—£000's

Product	Home Dispatches (ex-Works value)					Export Sales * (f.o.b. value)				
	1960	1961	1962	% Change '62 on '60	% Change '62 on '61	1960	1961	1962	% Change '62 on '60	% Change '62 on '61
Radio Receivers *including Car Radio*	16,797	20,149	19,125	+14	— 5	2,472	2,038	1,295	— 48	— 37
Radiograms	5,696	4,838	5,663	— 1	+17	304	262	262	— 14	nil
Television Receivers	60,220	48,853	47,438	—21	— 3	1,315	1,507	3,498	+166	+132
Total Turnover	82,713	73,840	72,226	—13	— 2	4,091	3,807	5,055	+ 24	+ 33

Product	Total Turnover: Home and Export				
	1960	1961	1962	% Change '62 on '60	% Change '62 on '61
Radio Receivers *including Car Radio*	19,269	22,187	20,420	+ 6	— 8
Radiograms	6,000	5,100	5,925	— 1	+16
Television Receivers	61,535	50,360	50,936	—17	+ 1
Total Turnover	86,804	77,647	77,281	—11	— 0.5

*Export Sales are ex-factory not ex-U.K. port
Source: BREMA Estimates and Ministry of Aviation

811

TABLE III

ESTIMATED TOTALS OF MANUFACTURERS' STOCKS: 1960/61/62
(Excluding Stocks on S.O.R. a/c held by Dealers)

Number—000's

Product	1960	1961	1962	% Change '62 on '60	% Change '62 on '61
Radio Receivers *including Car Radio*					
AM only:					
Valve	173	75	20	— 88	— 73
Transistor	149	328	452	+203	+ 38
FM and AM/FM:					
Valve	76	46	11	— 86	— 76
Transistor	4	11	45	‡	+309
Total Radio Receivers	402	460	528	+ 31	+ 15
Radiograms					
A.M. only:					
Single Channel	13	7	9	— 23	+ 29
Twin Channel		3	1		— 67
FM and AM/FM:					
Single Channel	7	4	9	+ 29	+125
Twin Channel	41	22	7	— 83	— 68
Total Radiograms	61	36	26	— 57	— 28
Television Receivers*					
Up to and including 17"	385	21	†	—	—
19" only	—	125	126	—	+ 1
23" only	—	30	23	—	— 23
Others	95	5	†	—	—
Total Television Receivers	480	181	152	— 68	— 16

Notes: * Television Receivers include those incorporating radio or radiogram, Chassis 75% or more assembled and Terminal Units
† The stocks of these items, although identifiable of themselves, are included in the total.
‡ Percentage not shown as it would be unrealistic.
Source: BREMA Members' Returns and Ministry of Aviation

TABLE IV

U.K. RETAINED IMPORTS: DOMESTIC RADIO AND TELEVISION EQUIPMENT 1960/61/62

Number—000's
Value—£000's (c.i.f.)

Product	Total Retained Imports					
	Number			Value		
	1960	1961	1962	1960	1961	1962
Radio Receivers:						
Transistored	71.8	245.9	529.3	472	1,145	1,993
Other	11.5	28.4	32.6	121	211	293
Total Radio Receivers	83.3	274.3	561.9	593	1,356	2,286
Radio Chassis	1.0	2.3	2.6	3	13	38
Radiograms	1.1	2.6	6.3	46	81	176
Television Receivers	0.5	0.8	0.3	21	28	19
Total: All Domestic Radio and Television	/	/	/	663	1,478	2,519

Note: For the purpose of comparision it has been assumed that non-mains sets imported during 1960 were mainly transistored radios.
Source: H. M. Customs and Excise

812

TABLE V

TOTAL RETAIL TRANSACTIONS* 1960/61/62

Number—000's

Product	*Radio Receivers (excluding Car)*					*Radiograms*				
	1960	1961	1962	*% Change '62 on '60*	*% Change '62 on '61*	1960	1961	1962	*% Change '62 on '60*	*% Change '62 on '61*
1st Quarter	325	403	519	+60	+29	50	45	48	— 4	+ 7
2nd Quarter	374	623	668	+79	+ 7	27	28	21	—22	—25
3rd Quarter	490	800	819	+67	+ 2	45	42	38	—16	—10
4th Quarter	512	726	855	+67	+18	85	88	107	+26	+22
Annual Total	1,701	2,552	2,861	+68	+12	207	203	214	+ 3	+ 5

Product	*Television Receivers*			*% Change*	
	1960	1961	1962	*'62 on '60*	*'62 on '61*
1st Quarter	618	446	360	—42	—19
2nd Quarter	338	383	272	—20	—29
3rd Quarter	368	392	317	—14	—19
4th Quarter	606	526	533	—12	+ 1
Annual Total	1,924	1,747	1,482	—23	—15

*Retail Sales and Rental and Relay Transactions
Source: BREMA Retail Survey

814

Table VIII

AVERAGE LIST PRICE (EXCLUDING PURCHASE TAX) 1960/61/62
TELEVISION RECEIVERS (SOUND AND VISION ONLY)* BY TUBE SIZES

Tube Size	1960			1961			1962		
	£	s.	d.	£	s.	d.	£	s.	d.
Up to and incl. 17"	48	10	0	46	5	6	46	10	0
19"	51	1	0	49	12	0	50	7	6
23"	65	19	0	62	16	0	63	18	0
Other Tube Sizes	59	11	0	56	11	0	54	19	6.

Note: Average Prices have been taken to the nearest 6d.
* Television Receivers with radio or radiogram incorporated are not included
Source: Estimates based on BREMA Members' returns

Table IX

TELEVISION RECEIVERS: MANUFACTURERS' PRODUCTION, HOME DISPOSALS AND STOCKS PERCENTAGE DISTRIBUTION (BY NUMBERS) BY TUBE SIZE, 1960/61/62

Tube Size	1960			1961			1962		
	Production	*Home Disposals*	*Year End Stocks*	*Production*	*Home Disposals*	*Year End Stocks*	*Production*	*Home Disposals*	*Year End Stocks*
Up to and incl. 17"	85	87	80	11	31	12	4	2	*
19"	Included with 'Other'			78	57	69	83	87	83
23"	Included with 'Other'			8	5	17	12	10	15
Other Tube Sizes	15	13	20	3	7	2	1	1	*

* These two groups would be separately identifiable; together they represent 2 per cent of the total television stocks
Source: Estimates based on BREMA Members' returns.

816 Commercial

Sales Promotion

Although publication of the Report of the Committee on Broadcasting—the Pilkington Committee—and the subsequent acceptance by the Government of its main technical recommendations resolved, for the industry and the general public alike, uncertainties as to the future television standards to be used in the United Kingdom, it did nothing to relieve the generally depressed condition of trade. The inevitable delay in introducing the new 625 line UHF television standards presented manufacturers with the bleak prospect of a further period of caution on the part of consumers and, in consequence, a major pre-occupation has been to ensure a proper awareness in the right places of the industry's

problems and to instil a sense of urgency in those concerned with providing the new transmissions. At the same time, a long and detailed examination was made of the extent to which action could be taken on an industry basis to relieve the unsatisfactory position into which television sales had fallen and to stimulate sales of all products on the BREMA schedule. Every sales promotion must have a specific story to tell around which overall business can be encouraged and in this respect it was evident that the main platform had necessarily to be a television replacement theme based on the new 625 line service and the additional BBC programme.

The problem of determining how best to serve the industry's interests proved a most difficult one to solve. A natural desire to press home to the buying public that sets were now capable of meeting all the demands of the new standards so that there was no longer reason to delay purchase or replacement, had necessarily to be tempered with the possibility that too much emphasis on a service which was, in any event, still in the future would adversely affect the replacement business which would otherwise have been done. Several schemes and suggestions for stimulating sales were prepared and considered for a campaign on a National basis, but taking all the factors into account it was decided the greatest impact was to be gained from specialised local campaigns in each of the transmitter areas shortly before the start of the new programme, effort being concentrated on obtaining an increase in the replacement rate. In consequence, detailed planning began early in 1963 for a sales promotion campaign in the Greater London area to precede the introduction of 625 line broadcasting from Crystal Palace.

With the new transmissions scheduled to start in April 1964—a time of year when television sales have normally tailed off—and the industry's main 'selling' season being

September to December, the timing of the campaign presented its own problem. As, however, it could be expected that the introduction of the 625 line service itself and the new programme would attract a reasonable amount of publicity over the weeks leading up to the start of the service, and since it is generally accepted that the best time to inject a boost into the market is when the public are already buying, it seemed that sometime during the last quarter of 1963 would be an appropriate time to present an industry sales effort. A further factor in fixing a specific period was the availability of suitable transmissions and programme material on which to demonstrate the new service—an essential requirement to the promotion—and in this respect physical problems surrounding the ability of the BBC to install the transmitting equipment and provide test transmissions adequate for demonstration
817 purposes dictated that the earliest likely period for a sustained sales campaign would be the second half of November. Planning has proceeded with this timing in mind, although firm arrangements depend on progress made by the BBC.

• • •

831 Method of Introducing New Standards

No decision has yet been taken on the method to be adopted on the introduction of the new standards for the present BBC and ITA programmes, but of the three methods proposed it appears highly probable that duplication will be employed, the programmes being originated on 625 line standards for UHF transmissions and converted to 405 line standards for radiation from VHF transmitters. Of prime concern to the receiver industry is the timing of duplicated programmes; it appears probable that their introduction would not be practicable until at least some two years after the start of the BBC's new

625 line programme, which by that time should be serving some two-thirds of the population.

If these assumptions are correct, television receivers required in the next few years will be either fully dual-standard 405/625 line VHF/UHF, or sets capable of conversion to this condition. As duplication spreads through the country, so the need for this type of receiver will fall and the main requirement will increasingly be for single-standard 625 line UHF sets.

• • •

857

Table I

INDUSTRY PRODUCTION, HOME DISPOSALS AND EXPORT SALES 1961/62/63

Numbers=000's

Product	*Production*					*Total Home Disposals*				
	1961	1962	1963	% *Change* '63 on '61	% *Change* '63 on '62	1961	1962	1963	% *Change* '63 on '61	% *Change* '63 on '62
Radio Receivers *including Car Radio*	2,831	2,774	2,503	—*12*	—*10*	2,576	2,555	2,616	+*2*	+*2*
Radiograms	170	203	280	+*65*	+*38*	189	202	274	+*45*	+*36*
Television Receivers	1,256	1,463	1,663	+*32*	+*14*	1,509	1,378	1,678	+*11*	+*22*

Product	*Export Sales**					*Total Home Disposals and Export Sales**				
	1961	1962	1963	% *Change* '63 on '61	% *Change* '63 on '62	1961	1962	1963	% *Change* '63 on '61	% *Change* '63 on '62
Radio Receivers *including Car Radio*	205	149	155	—*24*	+ *4*	2,781	2,704	2,771	—†	+ *2*
Radiograms	7.9	7.9	7.8	— *1*	— *1*	197	210	282	+*43*	+*34*
Television Receivers	44.6	112	53	+*19*	—*53*	1,554	1,490	1,731	+*11*	+*16*

*Export Sales are ex-factory not ex-UK port
†Less than 1%
Source: BREMA Estimates and Ministry of Aviation

Table II

VALUE OF INDUSTRY TURNOVER 1961/62/63

Value=£000's

Product	*Home Disposals (ex-Works value)*					*Export Sales* (fob value)*				
	1961	1962	1963	% *Change* '63 on '61	% *Change* '63 on '62	1961	1962	1963	% *Change* '63 on '61	% *Change* '63 on '62
Radio Receivers *including Car Radio*	20,149	19,125	20,357	+ *1*	+ *6*	2,038	1,295	1,266	—38	— 2
Radiograms	4,838	5,663	7,560	+*57*	+*34*	262	263	279	+ *6*	+ *6*
Television Receivers	48,853	47,438	62,776	+*28*	+*32*	1,507	3,498	2,019	+*34*	—*42*
Total Turnover	73,840	72,226	90,713	+*23*	+*26*	3,807	5,055	3,564	— *6*	—*29*

Product	*Total Turnover: Home and Export* 1961	1962	1963	*% Change* '63 on '61	'63 on '62
Radio Receivers *including Car Radio*	22,187	20,420	21,623	— 3	+ 6
Radiograms	5,100	5,925	7,859	+54	+33
Television Receivers	50,360	50,936	64,795	+29	+27
Total Turnover	77,647	77,281	94,277	+21	+22

*Export Sales are ex-factory not ex-UK port
Source: BREMA Estimates and Ministry of Aviation

858

Table III

ESTIMATED TOTALS OF MANUFACTURERS' STOCKS: 1961/62/63
(EXCLUDING STOCKS ON SOR a/c HELD BY DEALERS)

Numbers—000's

Product	1961	1962	1963	*%Change* '63 on '61	'63 on '62
Radio Receivers *including Car Radio*					
AM only:					
Valve	75	20	16	— 79	— 20
Transistor	328	452	247	— 25	— 45
FM and AM/FM:					
Valve	46	11	1	— 98	— 91
Transistor	11	45	6	— 46	— 87
Total Radio Receivers	460	528	270	— 41	— 49
Radiograms					
AM only:					
Single Channel	7	9	10	+ 43	+ 11
Twin Channel	3	1	1	— 67	Nil
FM and AM/FM:					
Single Channel	4	9	9	+125	Nil
Twin Channel	22	7	7	— 68	Nil
Total Radiograms	36	26	27	— 25	+ 4
Television Receivers					
19" Tube Size	125	126	58	— 54	— 54
23" Tube Size	30	23	16	— 47	— 30
Other Tube Sizes	26	3	6	— 77	+100
Total Television Receivers	181	152	80	— 56	— 47

Note: Television Receivers include those incorporating radio or radiogram, Chassis 75% or more assembled and Terminal Units
Source: BREMA Members' Returns and Ministry of Aviation

Table IV

UK RETAINED IMPORTS: DOMESTIC RADIO AND TELEVISION EQUIPMENT 1961/62/63

Numbers—000's
Value—£000's *(cif)*

Product	*Total Retained Imports* *Numbers* 1961	1962	1963	*Value* 1961	1962	1963
Radio Receivers:						
Transistored	245.9	529.3	1,506.7	1,145	1,993	3,974
Other	28.4	32.6	113.4	211	293	394
Total Radio Receivers	274.3	561.9	1,620.1	1,356	2,286	4,368
Radio Chassis	2.3	2.6	—	13	38	—
Radiograms	2.6	6.3	19.8	81	176	727
Television Receivers	0.8	0.3	0.4	28	19	31
Total: All Domestic Radio and Television	/	/	/	1,478	2,519	5,126

Note: In 1963, Radio Chassis was included with complete product
Source: HM Customs and Excise

859

Table V

TOTAL RETAIL TRANSACTIONS* 1961/62/63

Numbers=000's

Product	*Radio Receivers (excluding Car)*					*Radiograms*				
	1961	1962	1963	% Change '63 on '61	% Change '63 on '62	1961	1962	1963	% Change '63 on '61	% Change '63 on '62
1st Quarter	403	519	677	+68	+30	45	48	58	+29	+21
2nd Quarter	623	668	809	+30	+21	28	21	35	+25	+67
3rd Quarter	800	819	1,034	+29	+26	42	38	52	+24	+37
4th Quarter	726	855	1,115	+54	+30	88	107	112	+27	+ 5
Annual Total	2,552	2,861	3,635	+42	+27	203	214	257	+27	+20

Product	*Television Receivers*				
	1961	1962	1963	% Change '63 on '61	% Change '63 on '62
1st Quarter	446	360	435	— 2	+21
2nd Quarter	383	272	279	—27	+ 3
3rd Quarter	392	317	351	—10	+11
4th Quarter	526	533	518	— 2	— 3
Annual Total	1,747	1,482	1,583	— 9	+ 7

*Retail Sales and Rental and Relay Transactions
Source: BREMA Retail Survey

• • •

861

Table VIII

TELEVISION RECEIVERS: HOME DISPOSALS 1963

Product	*% Distribution by Price Groups at List Prices (excluding Purchase Tax)*				*Average List Price (excluding Purchase Tax)*
	Up to £50	*£50 up to £60*	*Over £60*	*Total*	£ s. d.
Convertible to Switchable	12%	17%	3%	32%	52 12 6
Dual Standard with UHF Tuner	* %	6%	14%	20%	63 10 0
Dual Standard less UHF Tuner	6%	28%	14%	48%	56 13 0
	18%	51%	31%	100%	

*Less than 1%
Source: Estimates based on BREMA Members' returns

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

897 AFFIDAVIT OF W. J. C. CHAPPLE

W. J. C. Chapple, residing at Malcolm Cottage, 60, Old Church Lane, Stanmore, Middlesex, England, being first duly sworn on oath deposes and says that were he called

as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the case of Hazeltine Research, Inc., vs. Zenith Radio Corporation, he would testify as follows:

1. He is employed by The General Electric Company Limited, One Stanhope Gate, London, W.1., England, as a chartered patent agent. He has been employed by The General Electric Company Limited since April 1929 as a member of the patent department and became adviser on patents and agreements on 1st December 1964.

898 2. He served for a number of years as one of the representatives of his company on the management committee of the British broadcast receiver patent pool which licensed patents of its members in the fields of radio and television broadcast receivers in the United Kingdom.

3. The said British broadcast receiver patent pool ceased to exist on June 30, 1964. The pool agreement and all licenses expired by their terms on that date and there has been no extension or renewal of the pool agreement or pool license for any period after June 30, 1964.

Affiant states that he has read the foregoing and that he knows the contents and that the same are true of his own knowledge.

/s/ W. J. C. CHAPPLE
W. J. C. Chapple

Subscribed and sworn to before me
this Eighth day of December 1965.

/s/ A. WALMSLEY
A. Walmsley
Notary Public

900 IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

AFFIDAVIT OF E. P. DALE-HARRIS

E. P. Dale-Harris, being first duly sworn on oath deposes and says that were he called to testify as a witness in the

United States District Court for the Northern District of Illinois, Eastern Division, in the case of Hazeltine Research Inc. v. Zenith Radio Corporation, he would state as follows:

1. He was for many years employed by Electric & Musical Industries Limited, Blyth Road, Hayes, Middlesex, London, England. He joined the company in May 1929 and retired at the end of June 1965. He was first employed as legal assistant in the patent department and latterly as manager of that department.

2. He served for a number of years as one of the representatives of his company on the management com-
901 mittee of the British broadcast receiver patent pool which licensed patents of its members in the fields of radio and television broadcast receivers.

3. He is satisfied that on or about November 20, 1957, letters were sent by the manager of the British broadcast receiver patent licensing pool to all licensees offering, subject to certain modifications, an extension to June 30, 1960 of the then existing licenses due to expire December 31, 1957. One of the modifications expressly set forth in said letter was the delation of Clause 4(a) of the then existing licenses which provided;

"4. The Licensee agrees with the Grantors as follows:—

(a) Not without the previous written consent of the Grantors to sell within the said territory any Television Receiver which has not been manufactured in the territory for which this Licence is granted. No Television Receiver shall be deemed to have been so manufactured within the meaning of this Licence which incorporates imported components to an extent per Television Receiver greater in value than ten per cent of the retail list price thereof. The Licensee will if so requested furnish information as to the value of any such imported and incorporated components."

A sample of the form letter which was sent to all licensees is attached hereto as Exhibit "A" to this affidavit. Subsequently he is satisfied that confirming letters were sent to those licensees who accepted the offer of an extension.

902 The confirming letters repeated the fact that the extension was effective with the amendment, inter alia, that Clause 4(a) was deleted. A sample of the form acceptance letter is attached hereto as Exhibit "B" to this affidavit. Similar letters were sent to licensees for both sound and television receivers.

4. The said British broadcast receiver patent licensing pool ceased to exist on June 30, 1964. The pool agreement and all licenses expired by their terms on that date and at the time of his retirement at the end of June 1965 there had been no extension or renewal of the pool agreement or pool license for any period after June 30, 1964.

Affiant states that he has read the foregoing and that he knows the contents and that the same are true of his own knowledge.

/s/ E. P. Dale-Harris
E. P. Dale-Harris

Subscribed and sworn to before me
this Eighth day of December, 1965.

/s/ A. Walmsley
A. Walmsley
Notary Public

[Seal]

904 Exhibit "A" to Affidavit of E. P. Dale-Harris

Armstrong Wireless & Television Co. Ltd.,
25, Oxford Street,
London, W.1.

P/T 51377
20th November, 1957.

Dear Sirs,

Licences A7-T and A7-S

As you are aware your above agreements expire on December 31st next. The Grantors feel, on account of pres-

ent circumstances, and having in mind especially the maintenance as far as possible of the comprehensive nature of the licences, that it is more in keeping with interests generally, to offer a short term extension of the said agreements rather than to formulate new longer term licences.

In order that there need be no break in licensing continuity and so that normal budgetting may occur it has been decided to offer such extensions. I am consequently authorized by the Grantors named in the licences to offer you extensions of your A7-T and A7-S Licences under the patents of the Grantors to June 30th 1960 subject to the modifications set out below.

From time to time in the past the Grantors have added patents of certain five other companies to your A7 Licences without extra charge. If and when some or all of them become available for the extended period they will accordingly be included in accordance with Clause 2(a) and (d) of the A7 Licences. In this connection I am authorised by E.M.I. Ltd. to state that they remain in a position, and are prepared, to offer to A7 Licensees fresh sub-licences (Licence X2) for the period of the extension under certain RCA patents in the form of Licence X1.

In view of the changed circumstances and conditions since the formulation of the A7-T and A7-S Licences it has been decided to make the following modifications in extensions of the licences:

(1) In the A7-T License there would be a reduced and single royalty rate of 1½% of nett turnover payable upon all apparatus (other than exported) covered by the Licence. The so-called "maximum" will remain at £25,000 but the figure of 0.02% in respect of subsequent turnover will be amended to 0.08%.

(2) In extension to both A7-T and A7-S Licences Clause 4(a) would be deleted.

Will you please advise me as soon as possible whether you wish to accept this offer of an extension of your existing licences to June 30th 1960 as indicated above. If so, I will send a formal letter for your signature.

Yours faithfully,

905 LICENCE A7-S (2nd Edition)

4. The Licensee agrees with the Grantors as follows:

(a) Not without the previous written consent of the Grantors to sell within the said territory any Broadcast Sound Receiver which has not been manufactured in the territory for which this License is granted. No Broadcast Sound Receiver shall be deemed to have been so manufactured within the meaning of this Licence which incorporates imported components to an extent per Broadcast Sound Receiver greater in value than ten per cent of the retail list price thereof. The Licensee will if so requested furnish information as to the value of any such imported and incorporated components.

LICENCE A7-T (2nd Edition)

4. The Licensee agrees with the Grantors as follows:

(a) Not without the previous written consent of the Grantors to sell within the said territory any Television Receiver which has not been manufactured in the territory for which this Licence is granted. No Television Receiver shall be deemed to have been so manufactured within the meaning of this Licence which incorporates imported components to an extent per Television Receiver greater in value than ten per cent of the retail list price thereof. The Licensee will if so requested furnish information as to the value of any such imported and incorporated components.

This is the sample letter marked "Exhibit A" mentioned and referred to in the affidavit of E. P. Dale-Harris sworn before me this eighth day of December, 1955.

/s/ A. WALMSLEY
Notary Public

906 Exhibit "B" to Affidavit of E. P. Dale-Harris

Armstrong Wireless & Television Co. Ltd., P/T 51700
25, Oxford Street,
London, W.1.

Dear Sirs, 13th January, 1958.

The Grantors now have pleasure in confirming that your

Licences A7-T and A7-S dated 11th May, 1953 are hereby extended until June 30th, 1960. All the terms and conditions of the said Licences shall remain in full force and effect, so far as applicable, until the said June 30th, 1960, subject, however, to the following amendments which shall take effect as from January 1st, 1958.

1. Lines 2 to 10 inclusive of sub-clause (e) of Clause 4 of your Licence A7-T shall be deemed to be deleted and replaced by "Royalties upon the Licensee's nett turnover as hereinafter defined at the rate of 1½% (one and a half per centum)"
2. The words "0.02% (nought point nought two per centum)" wherever appearing in the said Licence A7-T shall be deleted and replaced by the words "0.08% (nought point nought eight per centum)".
3. Sub-clauses (a) of Clauses 4 of the said Licences A7-T and A7-S shall be deemed to be deleted.

Yours faithfully,

For and on behalf of
The British Thomson-Houston Co. Ltd.,
Cinema-Television Ltd.,
Electric & Musical Industries Ltd.,
The General Electric Co. Ltd.,
Marconi's Wireless Telegraph Co. Ltd.,
Murphy Radio Ltd.,
Philips Electrical Industries Ltd.,
Pye Ltd.,
Standard Telephones and Cables Ltd.

We agree and accept the above
For and on behalf of
Armstrong Wireless & Television Co. Ltd.

This is the sample letter marked "Exhibit B" mentioned and referred to in the Affidavit of E. P. Dale-Harris sworn before me this eighth day of December, 1965.

/s/ A. WALMSLEY
Notary Public

907 IN THE UNITED STATES DISTRICT COURT

* * (Caption—59-C-1847) * *

AFFIDAVIT OF ALAN ALFRED PACKER

Alan Alfred Packer, residing at 55 Manor Way, Beckenham, Kent, England, being first duly sworn, on oath deposes and says that were he called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the case of Hazeltine Research, Inc., v. Zenith Radio Corporation, he would testify as follows:

1. He was employed by Rank Cintel until 2nd October, 1965 and is now employed by Rank Xerox Limited, which is a division of the Rank Organisation. He is the same Alan Alfred Packer who gave testimony by deposition in this action before the United States Consul at the American Embassy in London on September 17, 1965. At the time he was called to testify at said deposition, he was asked to testify concerning the importation of certain products
908 by Rank Cintel in the period prior to 1959.

2. On cross-examination by counsel for defendant, Zenith Radio Corporation, he was asked questions concerning his company and whether it was a member of the English Electric patent pool and he responded that his company was a member of such pool.

3. Affiant states that the only contacts he has had with the British broadcast receiver patent pool were concerned with the periodic distributions made by the pool, the last of which was received soon after the pool dissolved on 30th June, 1964. The Rank Cintel division of which he was chief accountant and chief administrator did not engage in the manufacture, sale or distribution of domestic radio or television receivers. Affiant's testimony at the deposition was on the basis of his recollection from prior duties with Rank Cintel and he was not testifying at said deposition on the

basis of any knowledge of any current relationship between Rank Cintel or any other division or part of the Rank companies and the British radio patent pool.

4. Affiant has re-read his deposition testimony and makes this affidavit to eliminate any possible confusion or misunderstanding that his testimony is to be interpretated as a statement based on his own personal knowledge that the British broadcast receiver patent pool was in exist-
909 ence at the time of his testimony. Since giving said deposition testimony, affiant has determined that the pool agreement to which his company was a party expired on 30th June, 1964 and no extension or renewal of said pool agreement has been entered into.

Affiant states that he has read the foregoing; that he knows the contents thereof; and that the same is true of his own knowledge.

/s/ ALAN ALFRED PACKER
Alan Alfred Packer

SUBSCRIBED AND SWORN TO
BEFORE ME this Seventh day
of December, 1965.

/s/ A. WALMSLEY
Notary Public.

[SEAL]

911 IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

AFFIDAVIT OF JOHN SINCLAIR EWING (AUSTRALIA)

State of New York, }
County of Queens, } ss.

John Sinclair Ewing, being first duly sworn on oath deposes and says that:

1. I am making this affidavit in connection with the case of Hazeltine Research, Inc. v. Zenith Radio Corporation, No. 59 C 1847, pending in the United States District Court for the Northern District of Illinois, and if I were called as a witness in that case I would testify to the facts and expert opinion set forth in this affidavit.

2. I am the same John Sinclair Ewing who filed a previous affidavit in this cause. I have been asked for my judgment on the following questions:

912 (a) What factors should be taken into account in estimating the share of the Australian market that a United States radio and television manufacturer could expect to achieve by exporting United States made products into that market?

(b) Considering those factors and any other factors which may be relevant, what share, if any, could Zenith Radio Corporation have reasonably been expected to achieve with its United States made radio and television sets in Australia during the period of May 22, 1959 through May 22, 1963?

3. In addition to the testimony and exhibits referred to in my previous affidavit, I have reviewed the following materials relating to the Australian market: "The Growing Australia Market Industry Study No. 1—The Household Electrical Appliance Market in the Next 10 Years", published by The Australian Women's Weekly, Sydney, Australia; Secondary Industries, Part II—Materials Used and Articles Produced in Factories, 1960-1961 and 1961-1962, published by the Commonwealth Bureau of Census and Statistics, Canberra, Australia. In addition I have drawn on my own personal knowledge and experience gained in my study of the Australian market both here in the United States and in Australia.

4. As in my previous affidavit I have assumed the fol-

lowing, for purposes of analysis:

913 (a) Zenith manufactured the sets in question in the United States and exported them as finished products, except possibly for modifications necessary to make them technically usable in Australia.

(b) The prices for the Zenith products f.o.b. Chicago on an average product mix are as follows:

	Television	Radio
1959 (2d half)	148.73	35.24
1960	145.68	28.77
1961	144.16	26.59
1962	136.80	27.12
1963 (1st half)	128.38	27.59

(c) Zenith's products were of high quality.

5. It is equally relevant in this affidavit to first point out, just as I did in my previous affidavit, that there is no necessary relationship between the share of the market a company has obtained in the United States and the share it could reasonably be expected to obtain in a foreign country. Thus, the same general reasons as I have previously stated would preclude such an automatic correlation, as would also factors peculiar to the Australian market. Consequently, I would state that any kind of extension from the American market share to an expected Australian market share by Zenith is nothing more than a guess, and under the circumstances here, neither accurate nor reliable.

914 6. The Zenith name is not a familiar one in the Australian market. There is a small radio and television company in Australia called Zenith Radio Company Pty. Ltd. which is unrelated to the American Zenith company, but the name is not widely known outside of New South Wales. Although some Zenith advertising might have a carry-over effect into Australia as a result of the circulation of American magazines in that country, the effect would be minimal, and certainly not of the scale necessary

to support the full scale marketing of a product such as radio or television. Certainly other American companies with well-established names such as General Electric, which have tried to enter Australia have encountered considerable difficulty in establishing consumer acceptance despite such advertising carry-over. The same handicaps with respect to after-sales service as exist in the United Kingdom would be true in Australia; and would tend to limit any sales Zenith might hope to make. In fact, Australia's distance from the United States, almost 10,000 miles from Chicago, exerts a strong psychological effect upon the Australian consumer, who considers delay in obtaining service repairs as an important element in his selection of electrical appliances.

915 7. While approximate figures dealing with advertising expenses in Australia are not readily available, it is true in Australia as in the United Kingdom that Zenith, as a newcomer, would have to spend proportionately more than a company already in the market and respected by the public, and these expenditures would have to be reflected either in the price per set, raising the ultimate retail price even higher than it would otherwise be, or otherwise financed out of expected profits.

8. Price is an important factor affecting any market share Zenith could have achieved in Australia, and one which would have prevented Zenith from obtaining any substantial or measurable share of the Australia television market.

9. The retail price of an imported television set in Australia would be derived as follows:

(a) To the ex-factory price must be added at least the following:

(1) export packing costs;
(2) cost of inland freight in the United States;
(3) ocean freight;

(4) inland freight in Australia;
(5) insurance, brokerage and forwarding fees, wharfage and bank charges;
916 (6) conversion costs;
(7) distributor's profits (if any is used)
(8) import duties (£A25 per set plus 45% ad valorem during most of the period involved);
(9) Australian sales tax (25%) (if the set is imported directly by a retailer so that there would be no wholesaler's profit, then the 25% sales tax is figured on 120% of the following: price ex-works plus export packing costs, inland freight, insurance, brokerage and forwarding fees plus import duties).

(b) To the foregoing total a percentage for retailer's margin should be added before reaching the price to the consumer. In appliance retailing in Australia the traditional mark-up has ranged from 20% to 30% or higher.

10. Without specific figures I cannot determine any precise figure for the hypothetical Zenith set exported to Australia. However, the multiplier technique discussed in my previous affidavit would be applicable here as well. Of course, the import duties in Australia are much higher than in the United Kingdom, so that a multiplier usable for United Kingdom imports might be too low when applied
917 to Australian imports. But even using the 3.2 multiplier, which was the lowest considered by Zenith's English distributor, the Zenith set would have to be sold in Australia at more than £A180 ($128.38 x 3.2—410.82 at $2.25/£A). This price, based on the lowest Zenith ex-factory price prevailing at any time during the four-year period for which such prices were disclosed, should be compared to prices prevailing in Australia for Australian-made television sets. In the period 1959-1962 the average price ex-works in Australia declined from £A108 to approximately

2A91.[1]

11. Price competition in Australia has manifested itself most prominently at the retail level. Television sets were advertised and sold at prices substantially below the manufacturer's suggested list prices, and retailers' profits were narrowed sharply, even to the extent that several chain retail organizations, including Reid Murray and Inglis Electrix, went out of business during this period as a result of severe competition. With competition of this nature it would have been necessary for a retailer to be able to narrow the mark-up he got on a set in order to sell it, and if he
918 was unable to narrow this mark-up so as to bring his price in line with competition, he would not be able to sell. Of course, with the high landed cost on an imported television set a dealer could not profitably lower the price of the set to the same levels at which sets of domestic Australian manufacture were being marketed.

12. The effect of market saturation is more pronounced in the Australian market. First, of course, the market for television sets became saturated after the initial surge during the beginning years of television in Australia. In addition, because of the relatively high cost of television, and the heavy maintenance costs of television receivers as compared to other appliances, the development of a second set market has been retarded. Further, the Australian manufacturers were able to draw on overseas experience in their initial production period and turn out a superior product from the outset, the effect of which was to give a longer life expectancy and further postpone the development of any sizeable replacement market.

13. The effect of this is seen in the actual experience of the Australian television market in the period in question.

---

[1] Secondary Industries, Part II—Materials Used and Articles Produced in Factories, 1960-1961 No. 55, Commonwealth Bureau of Census and Statistics, Canberra, Australia; *Id.*, 1961-1962, No. 56.

Production of television sets in Australia for the period 1958-1963 was as follows:

919

1958—273,748
1959—305,136
1960—428,799
1961—311,729
1962—282,337
1963—281,423[2]

14. The leveling off in 1960 and the sharp decline thereafter was the result of the market saturation I have described. Of course, a company seeking to penetrate an existing market already suffering from over-capacity will encounter more than the ordinary competitive pressures. This would have been particularly true in Australia during this period where many television manufacturers were driven out of business as a result of intense price competition brought on by declining sales and excess industry capacity at a time of heavy market saturation.

15. Other less tangible factors, such as Australian tastes, preferences for styling of television sets compatible to furniture stylings, desires for wooden cabinets, credit restrictions, such as the 1960 credit squeeze that intensified price competition in Australia, heavy inland shipping expenses and servicing costs because of the wide dispersion of the Australian population outside the six capital cities, and Canberra, all contribute to the increased and

920

[2] These figures representing fiscal years from July 1 through June 30 respectively, are not identical to the figures used by Zenith in its damage computations in DX-218, but are sufficiently similar so that it is of no importance that there are any variations. Zenith's figures, taken from another statistical report prepared by the Commonwealth Statistician, showed the following:

1958-1959	305,100
1959-1960	428,800
1960-1961	311,800
1961-1962	287,700
1962-1963	281,400

unusual difficulties that would be encountered by an American manufacturer attempting to ship finished television sets into the Australian market.

16. These reasons would apply with equal force to the importation of radios into Australia, but in some respects with even more force. Importation of low priced Japanese transistor radios presents the most important obstacle to penetration of the Australian radio market. The high Australian import duty on radios—a flat £A5 per set plus 45% of value during most of the period involved—also increases the effect of price competition on a costly imported set.

17. While I recognize that the Zenith Trans-oceanic set would have some special appeal based on its promotion as a differentiated product with unique characteristics, the sales volume it would attain in a foreign market such as Australia would not be great, and such a set would certainly not capture even 1% of the Australian market. The price at which such a set is offered for sale—over £A200—would put it in the distinct luxury class of goods, and even
921 there it would have to compete with comparable sets made in Australia and Japan and sold at lower prices by established companies.

/s/. JOHN SINCLAIR EWING
John Sinclair Ewing

SUBSCRIBED AND SWORN TO
BEFORE ME this 13th day
of October, 1965.

/s/ OLGA J. STUART
Notary Public
Notary Public, State of New York
No. 30-3884130
Qualified in Nassau County
Certificate filed in New York County
Commission Expires March 30, 1967.
[SEAL]

922 IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

AFFIDAVIT OF SIR ARTHUR WARNER

Commonwealth of Australia,
State of Victoria, } ss.

I, Sir Arthur George Warner, of 2 Dudley Street, Brighton, Victoria, Australia, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled case, I would testify as follows:—

1. For many years prior to 31 July 1965, I was Chairman and Managing Director of Electronic Industries Limited and Radio Corporation Proprietary Limited. Since 31 July 1965, I have been Executive Chairman of Elec-
923 tronic Industries Limited. In my capacity as the chief executive officer of these companies and their antecedents, I have been engaged in the manufacture, importation and sale of radio sets or wireless receivers and parts thereof since the middle 1920's. I have been engaged in the manufacture and sale of television sets since the beginning of the TV industry in Australia.

2. I was born in London on 31st July, 1899. I was educated at Monarch Grammar School, Chingford, and studied at the University of London. I was a Flight Lieutenant in the Royal Navy in World War I. In World War II I was employed by the Commonwealth Government (at no salary) as Controller of Finance for the Ministry of Munitions and also as Finance Director, Board of Area Management, Department of Munitions. I served in the Government of Victoria as Minister for Housing from 1947 to 1950, as Minister for Electrical Undertakings from 1949—1950 and as Minister for Transport from 1955-1962.

3. In my capacity as Managing Director of Radio Corporation Proprietary Limited and Electronic Industries Limited up to the 31st July 1965, I was intimately familiar with both the radio and television industries in Australia.

4. Australia has had radio since 1920 with public broadcasting starting in about 1923. There has been only experimental FM radio broadcast in Australia.

924 5. Television public broadcasting started in 1956 with the Olympic Games at Melbourne. The first TV stations were in Melbourne and Sydney. By 1960, there were 16 stations—3 in Sydney, 3 in Melbourne, 3 in Brisbane, 3 in Adelaide, 2 in Perth and 2 in Hobart. From 1962 to 1964, an additional 26 stations were opened, 2 in Canberra and the others outside of the capital cities.

6. Production of television sets in Australia rose from slightly over 100,000 sets in 1956-57 to a high of almost 450,000 sets in 1959-60. Since 1959-60, production has declined. Production did not exceed 300,000 sets in either 1961-62 or 1962-63 or 1963-64.

7. In the first years of television manufacture, 1956 and 1957, the capacity of local manufacturers of TV sets was insufficient to cope with the demand. During 1956 and 1957 many importers and manufacturers had an allocation for importation of goods of a non-essential nature based on the value of their imports during 1950-1951, the so-called base year, and this quota allocation included all countries other than U.S. dollar areas; consequently, in the financial year 1956-57 imports of TV receivers into Australia from the United Kingdom totalled about 5,000 and in the financial year 1957-58 were about 4,500. Only traditional importers who were able to establish a base year quota were entitled

925 to import a quantity not exceeding 250 TV sets per licensing period of four months duration or 750 per annum as per consolidated licensing instruction No.

108, page 80. However, in the years 1956 and 1957, the small number of imported TV receivers did not solve the shortage. Imports from U.S.A. of TV sets were nil from July 1956 to June 1960.

8. Although television broadcasting coverage was expanded in 1960 into new areas, this did not compensate for falling demand in the two major market areas, Sydney and Melbourne. Due to falling demand a number of television manufacturers operated at a loss during 1960. This included my own companies' television manufacturing operations. A number of manufacturers went out of the television manufacturing business in the 1960-61 production year and by 1963 the number of departures included Admiral of Australia, AEI-Ekco (Australian Electrical Industries Pty. Ltd.), Bush Simpson Ltd., Pope Products Ltd. (Motorola), Standard Telephones & Cables Pty. Ltd. and Stromberg-Carlson (Aust.) Pty. Ltd.

9. Starting in 1960 the prices of television sets ex works and also out of retail stores began to decline sharply. This decline continued through the end of 1964.

10. In my opinion, by 1959-60 it was much too late to get profitably established in the television business in Australia due to the marked over-capacity of the existing, established Australian television manufacturers.

* * *

927 13. Since May 1960, owing to the high rate of duty, commercial importation of TV receivers from U.S.A. and other countries has not been profitable except for a very small quantity of small-sized Japanese models. In 1963, small-sized Japanese type TV receivers were assembled from Japanese imported parts in Australia and sold to the trade—such assembly ceased at the end of 1964.

14. It would not be possible profitably to import American TV receivers into Australia due to this high duty plus

freight, and the differences between the Australian and the American technical standards.

15. In Australia, television and radio sets are distributed directly from manufacturer to retailer. An importer, in order to reach retailers across the expanse of the Australian continent, would need to establish warehouses or other distribution facilities in each state in which he desired to sell.

16. It is also necessary to have adequate stocks of spare parts and service depots readily available in each of the six states in Australia. Due to the size of the country and the fact that its population is spread out over large areas with great distances between population centers, a substantial number of warehouses or other facilities would be necessary. If spare parts are not available, retailers will refuse to handle the particular radio or TV set.

928 17. It is desirable and advantageous for a manufacturer or importer to maintain service facilities in each state to repair his own TV sets. Electronic Industries Limited has 23 servicing depots throughout Australia with component parts and mechanics available for servicing its radio and TV sets.

18. In Australia, a television receiver is expected to be part of the household furniture. The Australian sets usually feature attractive wooden cabinets. Imported sets with metal or plastic or unattractive wooden cabinets meet with consumer resistance except for the small portables intended as a second set which have had a limited acceptance in Australia.

19. * * * Since the 1958-59 year, Japan has dominated the imported radio market. Low cost Japanese sets account for a substantial portion of all transistorized portable radios imported into Australia. In the 1962-63 year, for example, Australian total portable production, both tube and tran-

sistor sets, was about 200,000 and imports of Japanese transistor sets was over 50,000 (excluding Japanese sets brought in by returning travellers, estimated at over 200,000 per annum).

929 20. In my opinion, no one could import American-made radio sets and compete price-wise with the Japanese transistor sets for the mass market.

21. The market for an expensive multi-band radio such as Zenith's Transoceanic is extremely limited. That set sells in Australia for more than £A 200 retail as compared to Japanese standard receiver at £20. My company makes a multi-band portable radio called the "Worldrange" providing amateur, shortwave and maritime bands as well as the standard broadcast band. It is in competition with other expensive multi-band radios and sells for approximately £A 83. Although this is a much lower price than the over £A 200 asked for the Zenith Transoceanic, still, even at this lower price level, our sales of the "Worldrange" approximate 240 sets per year.

22. In my opinion, based upon my years of experience in the radio and television business in Australia, no American corporation including Zenith could sell imported American TV sets or radios in commercial quantities except for odd sets such as the Zenith Transoceanic which would appeal to an extremely limited market.

930 I have read the foregoing and know its contents; the facts stated herein are true of my own knowledge.

/s/ ARTHUR G. WARNER
Arthur G. Warner

Subscribed and sworn to
before me this 24th day
of September, 1965.

/s/ R. G. EMANUEL
R. G. Emanuel
Justice of Peace.

937 IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

AFFIDAVIT OF JAMES INGLIS

Commonwealth of Australia
State of Victoria } ss.

I, James Edward Inglis of 1 Killeen Avenue, East Brighton, Victoria, Australia, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled case, I would testify as follows:

1. I am the Chief Procurement Officer of Electronic Industries Ltd. My office is located in Astor House, 161 Sturt Street, South Melbourne, Victoria. As Chief Procurement Officer, I am responsible for the importation of goods
938 and merchandise for Electronic Industries Ltd. Over an 18-year period my duties at Electronic Industries Ltd. have kept me in close contact with the importation of goods for the electronic, telephonic, electrical, radio and television industries. In consequence of the nature of my employment, I am completely familiar with the various costs incurred in the importation of goods for the radio and television industries including packing charges, inland freight, forwarding fees, ocean freight, insurance, bank charges, wharfage, stevedoring, local cartage, and sales tax.

2. I am a registered Customs Agent and have been for approximately 15 years. As a registered Customs Agent I am licensed to clear goods through the Australian department of Customs and Excise. I am qualified to act as a forwarding agent for any importer. In consequence of the nature of my employment, I am completely familiar with the Customs Laws, Regulations and provisions of the Commonwealth of Australia in force and effect during the last 15 years.

• • •

5. No significant imports of radio sets and television receivers has resulted since 23 February 1960 due to the high protective duties imposed on such imports by the Australian Government.

939 6. The rates of duty applicable to TV receivers or components imported from the United States from 1958 until 20 May 1960 were as follows:

Item	*Rate of Duty*
Cabinet	42.5%
Power Pack	25 shillings or 45% (whichever is higher)
Loudspeaker	10 shillings or 45% (whichever is higher)
Picture Tube	£A 11 plus 10%
Other Tubes	4/6d each or 45% (whichever is higher)
Balance of Set	24/10-1/2d per tube socket or 52½% (whichever is higher)

7. In addition, the "Balance of Set" was subject to "primage" duty of 5%. Primage is an additional duty to the duties of Customs imposed by the Commonwealth of Australia on certain specified goods.

8. The rates of duty applicable to TV receivers imported from the United States between 20 May 1960 and 31 December 1964 vide copy of Tariff proposals No. 6 dated 20/5/1960, No. 20 dated 21/10/1960 and No. 19 dated 12/8/1964 were as follows:

940

Item		*Rate of Duty*	
Picture Tube	Vide tariff Proposal No. 6	20 May 1960 to 20 October 1960	£A 11 plus 10%
	Vide tariff Proposal No. 20	21st October 1960 to 11 August 1964	£A 6 plus 12½%
	Vide tariff Proposal No. 19	12 August 1964 to Date	12½%
Balance of Set			£A 25 plus 45%

9. The rates of duty applicable to radio sets or components imported from the United States from 1958 until 20 May 1960 were as follows:

Tube Type Radio Receivers

Item	*Rate of Duty*
Cabinet (Tube Type)	42½%
Power Pack (tube-type radios only)	25 shillings or 45% (whichever is higher)
Tubes (tube-type radios only)	4/6d each or 45% (whichever is higher)
Loudspeaker (Tube Type)	10 shillings or 45% (whichever is higher)
Balance of Set (tube-type radios only)	24/10½ per tube socket or 52½% (whichever is higher)

941 *Transistor Type Radio Receiver*

Item	*Rate of Duty*
Cabinet	42½%
Loudspeaker	10/- each or 45% (whichever is higher)
Balance of Set	45%

10. The "Balance of Set", whether tube-type or transistor, was also subject to 5% primage duty.

11. The rates of duty applicable to radio sets imported from the United States between 20 May, 1960 and 31 December, 1964 vide copy of Tariff Proposal No. 6 annexed hereto were as follows:

£A 5 each plus 45%

12. I have estimated the costs of importing 100 cartons of 21" and 23" television receivers into Australia from the United States during the period 1959-1963 as follows (assuming 21" and 23" TV sets are similar in packing size and are packed in multiple packs containing 6 TV receivers per case size 61" x 31" x 46" cubic capacity 50.4 cubic feet or 8.4 cubic feet per set), and a value of $128.38 (£A57.6.3) ex works Chicago for both the 23" and the 21" set):

942

	Unit Cost	
	Dollars	*Pounds*
Value of cases 75 cents per cubic foot	$ 6.30	£ 2.16. 3
Labor for packing 25 cents per cubic foot	$ 2.10	£ -.18. 9
Inland freight approx.. $4.20 per 100 lb estimated weight per set 75 lb	$ 3.15	£ 1. 8. 2
Forwarder's fee and handling approx. $20.00 per shipment	$ 0.20	£ -. 1.10
Ocean freight	$12.50	£ 5.11. 8
Insurance (rate 0.787% based on c. & f. value +10%)	$ 1.22	£ -.10.11
Bank charges	$ 0.62	£ -. 5. 6
Wharfage and stevedoring (rate 17/3½ per 40 cubic feet)	$ 0.41	£ -. 3. 8
Local cartage (rate 20/- per 40 cubic feet)	$ 0.48	£ -. 4. 3
Agent's charges (approx. £10 per shipment)	$ 0.22	£ -. 2. -

13. The Australian sales tax when paid at time of importation and collected by the Department of Customs and Excise is levied on the value for duty, which is the current domestic value or the selling price in the country of origin whichever is the greater, plus cost of packing, inland freight and F.O.B. charges excluding cost of picture tube, ocean freight, and insurance, converted to Australian currency. Therefore the formula for arriving at a taxable amount is: value for duty plus all duties including primage plus 20% at the sales tax rate applicable. The sales tax rate applicable to television receivers is 25%.

14. The cost to an Australian retailer of the hypothetical 21" or 23" TV receiver at the assumed price of $128.38 ex works in Chicago and then imported from the United
943 States after 20 May 1960, without allowing for any profit whatsoever to the importer would be as follows (using the shipping costs for 100 lot shipments in paragraph 12 hereof and using the conversion rate of US $2.24 per Australian £. The conversion rate fluctuated between 2.23 and 2.24 during the period 1959-1963 the rate of 2.24 was used here resulting in the lowest landed cost in Australian pounds):

Price ex works	$128.38	(£A57. 6. 3	
Cases and packing	$ 8.40	(£A 3.15. 0	
Inland freight	$ 3.15	(£A 1. 8. 2	£A 62. 9. 5
Forwarder's fee			£A -. 1.10
Ocean freight			£A 5.11. 8
Insurance			£A -.10.11
Bank Charges			£A -. 5. 6
Wharfage and stevedoring			£A -. 3. 8
Local cartage			£A -. 4. 3
Agent's charges			£A -. 2. -
	Carried Forward		£A 69. 9. 3

This computation is carried forward to page 8 in 3 columns to reflect the changes on Picture Tube duty rates listed in paragraph 8 of this affidavit.

944

	(1) 20/5/60 to 20/10/60	(2) 21/10/60 to 11/8/64	(3) 12/8/64 To Date
Brought forward	£ 69. 9. 3	£ 69. 9. 3	£ 69. 9. 3
Duty as per Value for Duty Statement attached hereto based on an ex works price of $128.38 and a picture tube value of $22.40 which is a high figure	59. 7. 0	54.12. 0	48.12. 0
Sales tax (25% of value for duty+duty+20%)	29.19. 0	29.19. 0	29.19. 0
Total	£158.15. 3	£154. 0. 3	£148. 0. 3

This total represents the lowest possible price into any retail store in Australia.

I have read the foregoing and know its contents; the facts stated herein are true of my own knowledge.

/s/ James Edward Inglis
James Edward Inglis

Subscribed and sworn to before me this 24th day of September, 1965,
/s/ R. G. Emanuel
Justice of Peace.

945 **VALUE FOR DUTY STATEMENT FROM 20/5/60 TO 20/10/60**

	T.V. Receiver		*T.V. Picture Tube*	*Outside Packages*
Tariff Item	181E2		181J1A	408
Price Ex Works	$128.38		$22.40	$6.30
Less Picture Tube	22.40			
	$105.98			
Plus Labour in Packing into O/Pkgs	2.10			
Inland Freight	3.15			
	$111.23			
Converted @ 2.24	£49-13-2		£10-0-0	£2-16-3
Duty	£25-0-0 ea.		£11-0-0 ea.*	
And 45%	22-7-0	And 10%	1-0-0	

SALES TAX

V.F.D.	£49-13-2
Plus O/Packages	2-16-3
Plus duty	47- 7-0
	£99-16-5
Plus 20%	19-19-4
	£119-15-9
@ 25%	£29-19-0

Picture Tube is exempt from Sales Tax.

* As from 21/10/60 to 11/8/64 duty on picture tube was £6-0-0 each plus 12½%. Thus duty on picture tubes became £6-0-0 plus £1-5-0. The remainder of the value for duty statement was unchanged.

946 As from 11/8/64 to the present date the duty on picture tubes has been 12½% with a consequent duty of £1-5-0.

The remainder of the value for duty statement is still unchanged.

947

CUSTOMS TARIFF PROPOSALS' No. 6
THE SCHEDULE. IMPORT DUTIES.

Operative 20/5/60

Tariff Items	British Preferential Tariff	Intermediate Tariff.	General Tariff.
180. By omitting sub-item (E)			
181. By omitting paragraphs (2) and (3) of sub-item (A). By inserting new sub-items as follows:—			
"(E) Radio telegraphic and radio telephonic transmission and reception apparatus; radio broadcasting and television transmission and reception apparatus (including those incorporating gramophones) and television cameras; radio navigational aid apparatus radar apparatus and radio remote control apparatus—			
(1) Radio broadcast receivers, with or without sound recorders and reproducers, including furniture incorporating such goods, assembled and complete, including partly assembled or incomplete goods which the Minister directs shall be deemed to be assembled and complete each and ad val.	£5 27½%	£5 45%	£5 45%
948			
(2) Television receivers designed for the reception of signals without line connection, with or without radio broadcast receivers and sound recorders and reproducers, including furniture incorporating such goods, but not including cathode ray tubes (picture tubes), assembled and complete, including partly assembled or incomplete goods which the Minister directs shall be deemed to be assembled and complete each and ad val.	£25 27½%	£25 45%	£25 45%

Tariff Items.	British Preferential Tariff.	Intermediate Tariff.	General Tariff.
181—cont'd.			
"(G) Components of types suitable for use, or generally similar to those used, in radio and television transmitters or receivers or audio amplifiers, viz.:—			
(1) Valve sockets . . . each	2d.	3½d.	3½d.
or ad val.	27½%	45%	45%
whichever rate returns the higher duty.			
(2) Power packs . . . each	15s.	25s.	25s.
or ad val.	27½%	45%	45%
whichever rate returns the higher duty.			
(3) Resistors, fixed or variable, fixed resistors combined in the one external covering with fixed capacitors or inductors . . . each	¾d.	1d.	1d.
or ad val.	27½%	45%	45%
whichever rate returns the higher duty.			
949			
"(J) Thermionic, cold cathode and photo cathode valves and tubes (including vapour or gas filled valves and tubes, cathode ray tubes, television camera tubes and mercury arc rectifying valves and tubes, but not including valves covered by sub-item (I)); photo cells; transistors, thermistors and other semi-conductor devices; mounted piezo-electric crystals—			
(1) Cathode ray (picture) tubes as used in television receivers, whether imported separately or otherwise			
each	£11	£11	£11
and ad val.	..	10%	10%
950			
(2) Thermionic valves and tubes including rectifying valves, as used in transmission or reception apparatus for radio broadcasting, television, radio telegraphy or radio telephony			
each	2s. 6d.	3s. 9d.	3s. 9d.
or ad val.	27½%	45%	45%
whichever rate returns the higher duty.			
And an additional duty of . each	2s. 9d.	2s. 9d.	2s. 9d.
(3) Transistors, thermistors and other semi-conductor devices . each	2s. 6d.	3s. 9d.	3s. 9d.
or ad val.	27½%	45%	45%
whichever rate returns the higher duty.			
"(K) Parts for goods covered by sub-item (J)(2), (J)(3), (J)(5) or (J)(6), but not including glass envelopes; parts n.e.i., for goods covered by sub-item (E)(1) or (E)(2) . ad val.	27½%	45%	45%

952 1964.

The Parliament of the Commonwealth.

HOUSE OF REPRESENTATIVES.

Customs Tariff Proposals No. 19.

Motion moved by the Minister representing the Minister for Customs and Excise, the Honorable L. H. E. Bury, on the 11th August, 1964.

1. That the Schedule to the *Customs Tariff* 1933–1964, as proposed to be amended by Customs Tariff Proposals, be further amended to set out in the Schedule to these Proposals and that on and after the twelfth day of August, One thousand nine hundred and sixty-four, Duties of Customs be collected accordingly.

2. That in these Proposals, "Customs Tariff Proposals" mean the Customs Tariff Proposals introduced into the House of Representatives on the following dates:—

8th April, 1964;
16th April, 1964;
23rd April, 1964;
13th May, 1964; and
20th May, 1964.

THE SCHEDULE. IMPORT DUTIES.

953

DIVISION VI.—METALS AND MACHINERY.

Tariff Items.	British Preferential Tariff.	Intermediate Tariff.	General Tariff.
181. By omitting sub-paragraph (a) of paragraph (2) of sub-item (E) and inserting in its stead the following sub-paragraph:—			
"(a) Television receivers designed for the reception of signals without line connexion, with or without radio broadcast receivers and sound recorders and reproducers, including furniture incorporating such goods, assembled and complete, including partly assembled or incomplete goods which the Minister directs shall be deemed to be assembled and complete—			
on the picture tube - - ad val.	Free	12½ per cent.	12½ per cent.
on the remainder - - each	£25	£25	£25
and ad val.	27½ per cent.	45 per cent.	45 per cent."
By omitting sub-paragraph (a) of paragraph (1) of sub-item (J) and inserting in its stead the following sub-paragraph:—			
"(a) Picture tubes as used in television receivers - - - - - - ad val	Free	12½ per cent.	12½ per cent."

By Authority: A. J. ARTHUR, Commonwealth Government Printer, Canberra

954 1960.

The Parliament of the Commonwealth.

HOUSE OF REPRESENTATIVES.

Customs Tariff Proposals No. 20.

Motion moved by the Minister representing the Minister for Customs and Excise, the Honorable F. M. Osborne, in the Committee of Ways and Means on the 20th October, 1960.

1. That the Schedule to the *Customs Tariff* 1933–1960,

as proposed to be amended by Customs Tariff Proposals, be further amended as set out in the Schedule to these Proposals, and that on and after the twenty-first day of October, One thousand nine hundred and sixty, at nine o'clock in the forenoon, reckoned according to standard time in the Australian Capital Territory, Duties of Customs be collected accordingly.

2. That in these Proposals, "Customs Tariff Proposals" mean the Customs Tariff Proposals introduced into the House of Representatives on the following dates, namely:—

19th May, 1960;
16th August, 1960; and
8th September, 1960.

THE SCHEDULE. IMPORT DUTIES.

956

Tariff Items.		British Preferential Tariff.	Intermediate Tariff.	General Tariff.
DIVISION VI.—METALS AND MACHINERY—*continued.*				
181. By omitting paragraph (2) of sub-item (E) and inserting in its stead the following paragraph:—				
"(2) Television receivers designed for the reception of signals without line connexion, with or without radio broadcast receivers and sound recorders and reproducers including furniture incorporating such goods, assembled and complete, including partly assembled or incomplete goods which the Minister directs shall be deemed to be assembled and complete. On the receiver less picture tube	each	£25	£25	£25
	and ad val.	27½ per cent.	45 per cent.	45 per cent.
And on the picture tube	each	£6	£6	£6
	and ad val.	..	12½ per cent.	12½ per cent."
By inserting in sub-item (G) a new paragraph as follows:—				
"(4) Chokes and choke coils, not covered by item 181 (F)(2)	ad val.	27½ per cent.	45 per cent.	45 per cent."
By omitting paragraph (1) of sub-item (J) and inserting in its stead the following paragraph:—				
"(1) Cathode ray tubes—				
(*a*) Picture tubes as used in television receivers	each	£6	£6	£6
	and ad val.	..	12½ per cent.	12½ per cent.
(*b*) Other	ad val.	Free	7½ per cent.	7½ per cent."

IN THE UNITED STATES DISTRICT COURT

* * (Caption—59-C-1847) * *

AFFIDAVIT OF ALFRED GARRAWAY

Commonwealth of Australia }
State of Victoria } ss.

I, Alfred Garraway, being duly sworn, on oath depose and say that, were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled case, I would testify as follows:

1. I am Chief Television Engineer of Radio Corporation Pty. Ltd. whose registered office is located at, 7th Floor, "Astor House," 161-173 Sturt Street, South Melbourne, Victoria, Australia.

2. I am fully conversant with the changes necessary to convert American TV sets to Australian standards today and during the period 1959 through 1963.

959 3. The standards for Australian television receivers are set out in an official booklet of the Australian Broadcasting Control Board entitled "Television Channels, Standards for Limits of Radiation from Receivers" published June, 1956, and re-issued August, 1961. This booklet is attached to this affidavit and incorporated herein for all purposes.

4. The frequencies of American television channels differ materially from that of the Australian television channels. Using the 1961 specifications of television broadcasting in the United States, the American channels were as follows:

American Channel No.	*Vision Carrier Mc/s*	*Sound Carrier Mc/s*
2	55.25	59.75
3	61.25	65.75
4	67.25	71.75
5	77.25	81.75
6	83.25	87.75
7	175.25	179.75
8	181.25	185.75
9	187.25	191.75
10	193.25	197.75
11	199.25	203.75
12	205.25	209.75
13	211.25	215.75

Using the 1961 specifications of the Australian Broadcasting Control Board, the Australian channels were as follows:

Australian Channel No.	*Vision Carrier Mc/s*	*Sound Carrier Mc/s*
0	46.25	51.75
1	57.25	62.75
2	64.25	69.75
3	86.25	91.75
4	95.25	100.75
5	102.25	107.75
5A	138.25	143.75
6	175.25	180.75
7	182.25	187.75
8	189.25	194.75
9	196.25	201.75
10	209.25	214.75
11	216.25	221.75

960

5. American television sets manufactured in the period 1959 to 1963 were using two different sets of intermediate frequency. Some had the then relatively new standard of 45.75 Mc/s for the Vision frequency and 41.25 Mc/s for the

Sound frequency. Others had the older standard frequencies of 25.75 Mc/s for the Vision frequency and 21.25 Mc/s for the Sound frequency.

The Australian standards for the intermediate frequencies are 36 Mc/s for the Vision frequency and 30.5 Mc/s for the Sound frequency.

6. In addition to the different channel and intermediate frequencies the carrier spacing between the Vision and Sound carriers is 1 Mc/s greater with the Australian standards than with the American standards.

7. These differences will necessitate the following changes to the American tuner to enable reception of Australian channels: (1) 13 new aerial coils; (2) 13 new radio frequency coils, each comprising two windings, on the same former; (3) 13 new oscillator coils; and (4) one new intermediate frequency coupling coil. When new coils have been fitted the tuner must be adjusted and tested.

8. The intercarrier spacing, i.e. the difference between the Vision and Sound carriers, is 5.5 Mc/s in Australia and 4.5 Mc/s in United States. The difference requires 961 modifications to the video I. F. amplifier and to the Sound I. F. amplifier.

9. All tuning coils in the Vision I.F. amplifier would have had to be replaced to increase the bandwidth by approximately 1 Mc/s per second. Based upon American circuits of the period 1959-1963, at least 6 coils in the I.F. amplifier and three coils plus one resistor in the video detector section would have had to be replaced. After replacement, the coils must be aligned and the vision I.F. amplifier tested.

10. The sound I.F. amplifier must also be modified not only because of the intercarrier spacing but because the maximum frequency deviation is 25 Kc. per second under American standards and 50 Kc. per second under Australian standards. These differences require changing at

least two intermediate frequency transformers and one FM detector transformer. After these transformers are fitted, the sound I.F. amplifier must be aligned and tested.

11. Again because of the difference in the intercarrier spacing in Australia the intercarrier interference is at 5.5 Mc/s instead of 4.5 Mc/s. This difference requires changing the 4.5 Mc/s interference trap for one tuned to 5.5 Mc/s. Because of the 1 Mc/s greater Video bandwidth required, it will be necessary to change at least the video plate load resistor and plate load coil.

12. The power supply in America is 115 volts, 60 cycles per second. The power supply in Australia is 230 volts, 50 cycles per second. To operate an American set in Australia either the power transformer must be changed or an extra 230 to 115 volt transformer must be fitted to the set.

962 13. Sets utilizing intermediate frequencies other than those suggested in the Australian standards were subject to the risk of interference coupling directly into the intermediate frequency amplifier. In addition the use of a non standard intermediate frequency could have resulted in increased interference to other television receivers and other services.

Due to the risk of such interference occuring with some Australian assembled television receivers using American I.F. strips, the Australian Broadcasting Control Board issued statements to the Australian newspapers on the danger of interference occuring in T.V. sets not using the Australian standard frequencies. To be completely certain of trouble-free reception any American T.V. sets using intermediate frequencies other than specified for Australia, should have a 36 Mc/s I.F. strip fitted.

14. These modifications are extensive and would require a production line operation. If we assume that the Amer-

ican television sets are received in a partly wired condition, i.e. all those components that are peculiar to Australian requirements are left out, and if we further assume that all the new components that must be added are supplied by the American company then in my opinion a work force of at least 23 operators would be necessary to turn out modified sets, capable of meeting all Australian requirements, in commercial quantities up to 100 sets per day. If it were desired to convert substantially smaller numbers of sets per day, then the costs of the conversion operation would become prohibitive.

963 15. When a T.V. set manufactured to American standards is purchased in the United States and brought into Australia, assuming the set is fitted with a step-down transformer to receive the Australian 230 volt, 50 cycle per second power supply, a picture can be obtained on some channels but not the channel indicated in the tuner dial. The picture lacks detail and has poorer definition than the picture which can be received on an Australian receiver. The set will not receive sound.

I have read the foregoing and know its contents; the facts stated herein are true of my own knowledge.

/s/ A. GARRAWAY

Subscribed and sworn to
before me this 24th day
of September, 1965.

/s/ R. G. EMANUEL
Justice of Peace.

966 Commonwealth of Australia.

Australian Broadcasting Control Board.

TELEVISION CHANNELS, STANDARD INTERMEDIATE FREQUENCIES AND STANDARDS FOR LIMITS OF RADIATION FROM RECEIVERS

Statement Prepared for the Information of Manufacturers of Television Receivers.

June, 1956

Amended and Re-Issued August, 1961

967 • • •

Introductory

This statement has been prepared for the information of manufacturers of television receivers and deals with—

(a) Television Channels in Australia;
(b) Standard Intermediate Frequencies for Television Receivers;
(c) Limits of beat oscillator radiation from television receivers;
(d) Limits of sweep circuit radiation and voltage fed back through the power mains from television receivers.

It replaces a similar statement distributed by the Board in June, 1956. The recommendations contained in this statement have been arrived at after consultation and agreement with representatives of receiver manufacturers, arranged through the Associated Chamber of Manufactures, and with the Postmaster-General's Department. It may be necessary in the light of experience to review the recommended limits for (c) and (d).

Channels

Thirteen channels in the very high frequency (VHF) band have been allocated for television stations in the Commonwealth. The channels are as follows:—

Channel	0	45- 52	Mc/s.
"	1	56- 63	"
"	2	63- 70	"
"	3	85- 92	"
"	4	94-101	"

Channel	5	101-108 Mc/s.
"	5A	137-144 "
"	6	174-181 "
"	7	181-188 "
"	8	188-195 "
"	9	195-202 "
"	10	208-215 "
"	11	215-222 "

The Board, with the concurrence of representatives of manufacturers, suggests that receivers should be designed to tune to all the VHF channels specified above.

STANDARD INTERMEDIATE FREQUENCIES

It is essential that standard intermediate frequencies for vision and sound should be employed for all receivers used in the Commonwealth, in order that the Board may be able to make frequency allocations for television stations in specific locations in such a manner as to avoid mutual interference between television and other services arising from image responses, intermediate frequency difference responses and beat oscillator radiation. If a multiplicity of intermediate frequencies is used for receivers, it will be impracticable to ensure maximum protection from interference.

The following alternative intermediate frequencies should therefore be employed in all television receivers used in Australia:—

Sound carrier	30.5 Mc/s	or	31.375 Mc/s
Vision carrier	36 Mc/s		36.875 Mc/s

These frequencies should be adhered to within ± 0.25 Mc/s and the oscillator frequency should be above the channel frequency.

The Postmaster-General's Department has agreed to arrange frequency assignments in the band encompassing the above intermediate frequencies to ensure protection of television services from interference by other services.

LIMITS OF BEAT OSCILLATOR RADIATION FROM TELEVISION RECEIVERS

Because of the effects of radiation from television receivers, it is necessary that beat oscillator radiation be kept within reasonable limits. This matter is of particular importance in connexion with the protection of navigational services such as those conducted by the Department of Civil Aviation.

Radiation from television receivers due to beat oscillators should therefore be kept as low as good practice will permit and in any case should not exceed the following levels for the channels indicated:—

Channels	0– 5	.. 50	microvolts per metre at 100 feet.
"	5A	.. 100	" " " " " " "
"	6–11	.. 150	" " " " " " "

969

LIMITS OF SWEEP CIRCUIT RADIATION AND VOLTAGE FED BACK THROUGH THE POWER MAINS FROM TELEVISION RECEIVERS.

Because of the effects of television receiver sweep circuits on reception of sound broadcasting it is necessary that sweep circuit radiation and sweep circuit voltage fed back through the power mains be kept as low as good practice will permit.

In any case radiation at the back of receivers and voltages fed back through the power mains, from the sweep circuits of television receivers, should not exceed the following levels in the frequency band 525 kc/s to 1605 kc/s:—

RADIATION

Magnetic field—measured 5 feet from the back of the receiver—700 *microvolts per metre.*

Electric field—measured 5 feet from the back of the receiver—200 *microvolts per metre.*

Voltage Fed Back Through the Power Mains

Average of measurements from each side of power mains to earth—70 *microvolts*

970 Appendix

Methods of Measurement of Spurious Radiation from Television Receivers

General

These methods of measurement are based on methods decided in the course of standardization overseas.

Radiation from Heterodyne Oscillators

The receiver under test, if a table model, shall be mounted 4 feet above ground. It shall be adjacent to a 30 foot vertical mast capable of being rotated in azimuth. The mast shall carry a horizontal dipole 88 inches in length and ½ inch in diameter. The dipole shall be connected with centre feed to the receiver input by a transmission line of type and characteristic impedance for which the receiver is designed, the transmission line being suitably secured to the mast to ensure mechanical and electrical stability.

The receiver and mast shall be located on relatively level ground free from any obstruction to a distance of at least 100 feet from the receiver and field strength meter and away from reflecting objects. It will be necessary to rotate the receiver with the mast. The receiver shall be fed with power through mains buried to a depth of a foot, and for a length of at least 100 feet from the receiver.

The transmission line shall proceed horizontally away from the receiver aerial terminals and then vertically upward for a height of 7 feet above ground and finally again horizontally to a position vertically disposed under the centre of the dipole. After the first bend it shall not approach closer than 6 inches to the cabinet at any point.

The radiated field shall be measured by a suitable field strength meter located at a distance of 100 feet from the aerial of the receiver under test. The field strength meter shall be equipped with an aerial capable of being adjusted

for, horizontal or vertical polarization. Provision shall be made for varying the height of this aerial above ground between 7 and 20 feet.

The receiver under test shall be tested with the transmission line from the dipole connected directly to its aerial terminals. A second set of measurements shall be made either with these connexions reversed, or in the case of coaxial lines with the receiver rotated 180° with respect to the receiver chassis.

If the receiver is supplied with a built in aerial, measurements shall also be made with this aerial connected to the aerial terminals.

The receiver under test shall be checked over the frequency range to which it is intended to be tuned. The number of test frequencies shall be adequate to ensure measurement of maximum radiation within the range.

With the field strength meter tuned to the frequency of the spurious radiation being measured, and with its aerial aligned horizontally and broadside to the receiver
971 under test and 20 feet above ground, the receiver under test and its dipole aerial shall be rotated together in a horizontal plane, until maximum signal at the field strength meter is obtained. The aerial of the field strength meter is now varied in elevation from 20 feet to 7 feet, holding it broadside to the receiver under test, and the maximum reading of field strength so obtained is recorded as the radiation field strength of the receiver under test. These tests shall now be repeated with the test receiver aerial reversed as indicated above.

The above tests shall be repeated with the field strength meter aerial aligned for vertical polarization.

If reversing the aerial of the field strength meter produces an appreciable difference, the results so obtained should be averaged.

Radiation from Sweep Circuits

The receiver should be tested in an open location. The power mains shall be buried to a depth of a foot and for a distance of at least 20 feet from the receiver, but may be buried for the same distance as in the case of the oscillator radiation tests.

A field strength receiver capable of operating over the range 525-1605 kc/s, and using a loop pickup shall be available. The receiver to be tested shall be set up 5 feet from the field strength receiver.

In addition, a field strength receiver operating over the same frequency range, and using a vertical aerial of length approximately 4 feet shall be available. It shall be set up as in the case of the receiver employing a loop.

The centre of the loop of the field strength meter and the centre of the television receiver shall be at the same level.

The television receiver shall be provided with an aerial of the same height as for the oscillator radiation tests.

A television signal input to the receiver to synchronize the sweep circuit of the receiver shall be provided.

The power supply to the receiver under test shall be fed through a mains filter employing two series chokes of impedance at least 300 ohms at the frequency concerned with 0.5 microfarad condensers to earth on the mains side of the chokes and a 0.1 microfarad condenser and 50 ohms resistance in series to earth from each choke on the receiver side. The filter shall be shielded and located under the receiver being tested and near the ground. The mains supply shall leave the filter on the side of the receiver under test remote from the field strength set.

The tests shall be made with the field strength set loop vertical, and shall be repeated with the loop of the field strength set horizontal.

They shall also be repeated using a field strength receiver with a vertical aerial.

In order to measure the interference voltage in the power line, a receiver shall be employed calibrated with a signal generator and operating between 525 kc/s and 1605 kc/s. Its input impedance in this band shall be high compared with 50 ohms. The voltage shall be measured across each 50 ohms resistance in the mains filter, and the average of the two readings recorded.

.972 References

1. Standards on Radio Receivers. Open field method of measurement of spurious radiation from frequency modulation and television broadcast receivers in 1951. Proc. Inst. Rad. Engrs., July 1951.
2. International Electrotechnical Commission, November 1954: Technical Committee No. 12 Radio Communication: Sub-Committee 12-1: Measurements. Document 12-1 Secretariat (13). Questionnaire on Time Base Radiation (only for T.V.).
3. International Electrotechnical Commission, June 1955. Technical Committee 12 Radio Communication. Sub-Committee 12-1 Measurements. Document 12-1-10 British Proposals for Methods of Measurement of Radiation from Radio Receivers and Susceptibility of Receivers to Interferences.
4. Spurious Radiation from T.V. Receivers, K. A. Chittick (R.C.A. Home Instrument Division, Camden, N.J.). Transactions of the I.R.E. Broadcast and T.V. Receiver Group, April, 1954.
5. Regulations against radio disturbance U.I.T. Journal, September 1955.
6. International Electrotechnical Commission, July 1954. Technical Committee No. 12 Radio Communication. Sub-Committee 12-1 Measurements. Document 12-1-3 Danish views regarding measurements of time base radiation.

973 IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

AFFIDAVIT OF ARTHUR WALTER BARRS

Commonwealth of Australia }
State of New South Wales } ss.

I, Arthur Walter Barrs, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled cause, I would testify as follows:

1. I am Chairman of Directors and Managing Director of A. W. Barrs Pty. Ltd., 99 Crown Street, Sydney, State of New South Wales and Chairman of Directors and Managing Director of A. W. Barrs (Qld.) Pty. Ltd., 618-620 Wickham Street, Fortitude Valley, Brisbane, State of Queensland. These Companies, which I represent, are in the imported car radio business and are the franchised dealers for
974 German Blaupunkt car radios in New South Wales and Queensland. I am well acquainted with the costs of importing radios into Australia.

2. I have had negotiations with American radio manufacturers about importing American car radios into Australia. In every case, the American price, ex works in the United States, has been too high.

3. The Japanese are a very small factor in the car radio market in Australia. One of the first Japanese car radios on the market in Australia was the Sony. The Sony radios were brought into Australia without spare parts. As a result of the inability to repair the first Japanese car radios it is now very difficult to sell them against the local Australian made radios.

4. I would not handle any imported radio if stocks of

spare parts were unavailable. When it comes to selling radios, it is essential that the radios can be repaired. The radios cannot be repaired without spare parts.

5. In my experience, the retail price of a car radio set imported into Australia will be 3.6 times the total of the price ex works plus shipping cost plus import duty. Mark-ups at each level of distribution in Australia are high because (1) freight and distribution costs are high due to the long distances in Australia between relatively small
975 markets, and (2) the high cost of servicing or repairing the radios.

I have read the foregoing and know its contents; the facts herein are true of my own knowledge.

/s/ A. W. Barrs
Arthur Walter Barrs.

Subscribed and sworn to before me this 29th day of September, 1965.

J. C. Allen, J. P.

977 In the United States District Court

• • (Caption—59-C-1847) • •

AFFIDAVIT OF S. W. GOODWIN

Commonwealth of Australia
State of New South Wales } ss.

I, S. W. Goodwin, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled cause, I would testify as follows:

1. I am the Managing Director of Goodwin's Ltd. Goodwins Ltd. through its subsidiary companies, operates retail appliance sales outlets in New South Wales. In volume of

sales I am one of the largest retailers of electric appliances in New South Wales. As a result of my experience in managing the operations of Goodwin's Ltd. and its subsidiaries, I am fully conversant with the business of buying and selling radio and television sets in New South Wales.

2. In my experience, it is very difficult to sell foreign-made goods to Australians. The "Buy Australian" campaign is union supported and very effective. There is a resistance almost amounting to a blacklist against all imported merchandise except Japanese products. The
978 "Buy Australian" campaign is not directed against Japanese products because Japan is such an importent customer for Australian exports and Australia's balance of trade with Japan has been favourable.

3. In my opinion, it is harder to sell imported television receivers to Australians than it is to sell other imported merchandise. Repairmen have difficulty servicing imported television receivers and make disparaging remarks about imported TV sets to householders when on a service call. Furthermore, retailers and consumers alike are forced to rely upon the importer and distributor for spare parts for the imported TV receivers. Repairmen do not carry spare parts for imported TV sets.

4. It may also be necessary for the importer to train repairmen to service the imported TV sets. It would be prohitively expensive, with Australia's spread-out population, for an importer or a foreign manufacturer to attempt to maintain his own repair organisation throughout Australia.

5. At various times in the past I have made every effort to import television receivers on a commercial basis. I personally went to Japan and contacted a number of Japanese manufacturers including Sony and Mitsubishi. The lowest price obtainable, ex works in Japan, for a 21" TV set was £A29. Even this price was not low enough after the pay-

ment of duty and other importing costs and the 25% Australian sales tax to compete price-wise in Australia.

6. I investigated the ex works prices for the German "Saba" television sets and was offered the distributor-ship for Saba in New South Wales. Because of the high price and resulting negligible volume, I was not interested in distributing Saba sets.

7. By 1960, the television industry in Australia had achieved the plant capacity to produce more television sets than it was possible to sell. In addition the television market had become saturated with television receivers in about 85% of the homes reached by television broadcasts. My total orders of new television sets from manufacturers fell off drastically.

8. In August 1960, the Australian government an-
979 nounced certain credit restrictions. This so-called "credit squeeze" became effective in 1961. The credit squeeze drastically curtailed the ability of retailers to operate on credit and cut down instalment buying by consumers. Naturally, this adversely affected the sale of non-essential consumer goods including radio sets and television receivers.

9. By 1960, when new areas received television stations for the first time, retailers offered used television sets to consumers in the new areas in competition with the sales of new sets. Aggressive merchandising of used TV sets further adversely affected the market for new sets.

10. During 1960 and 1961 the market for television was so depressed that a large number of manufacturers withdrew from the television business or went out of business altogether. Some of these companies were Standard Telephones & Cables (withdrew), AEI-Ekco (withdrew), Bush Simpson (out of business), Admiral of Australia (out of business) and Pope Motorola (out of business).

11. In my opinion, due to the industry over-capacity and the market saturation, by 1960 it was too late for a new

manufacturer to start in the business of manufacturing television receivers. It certainly was too late for any importer to get any significant volume of business in competition with the Australian manufacturers.

12. Another adverse factor which any importer must face is the lack of television wholesalers. All the large wholesalers like Block & Gerber went bankrupt or got out of the business by 1960. As a result a manufacturer or an importer must have a branch or distribution outlet in every state in Australia. Distribution in Australia is direct to the retailer or direct to the consumer.

980 I have read the foregoing and know its contents; the facts stated therein are true of my own knowledge.

/s/ S. W. Goodwin
S. W. Goodwin

Subscribed and sworn to
before me this 28th day of September, 1965.
J. C. Allen, J. P.

In the United States District Court

* * (Caption—59-C-1847) * *

982 AFFIDAVIT OF JOHN THORPE

Commonwealth of Australia }
State of New South Wales } ss.

I, John Thorpe, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled cause, I would testify as follows:

1. I am Australian Manager of Consolidated Appliances, a large volume retail outlet for electric appliances. I sell refrigerators, washing machines, clothes dryers, television sets and combination TV/stereophonic radio-phonographs.

I also rent television receivers to customers.

983 2. In the operation of my retail business I buy television receivers and combination TV/stereophonic radio-phonographs. I am quite familiar with the market for television receivers and combination TV/stereophonic radio-phonographs in New South Wales.

3. I sell or rent out an average of 50 new television sets a week. I also do a substantial business in used television sets. My business breaks down roughly into 50% used merchandise, 25% new television sets sold or rented and 25% new combination TV/stereophonic radio-phonographs.

4. Since I am responsible for repairs in rental sets and such repairs are performed by my own employees, I am unwilling to rent out a foreign-made television set.

5. I buy private brand 23" television sets direct from the manufacturers for £A 75. I pay £A 119 for the combination stereophonic radio-phonographs. It is not possible for a retailer to sell television receivers if he has to pay the manufacturer or importer much over £A 80. In the period 1960-1963, this maximum price to the retailer was £A 90. In my opinion, full-size imported television receivers cannot be sold in Australia because of import duty. I certainly could not sell and would not be interested in attempting to sell any imported set if the cost to me was around £A 150. I have made inquiries about importing television receivers from Japan. I contacted Sony, National and Hitachi. I have not imported any sets from Japan.

984 6. I imported some small, 2-transistor sets from Japan in 1961. These sets cost only 10 shillings ex works in Japan. In order to make my profit after paying shipping costs and import duty, I sold the sets for £A 30, an increase of 60 times over the ex works cost.

7. In addition to price problems created by high import duties, repairs and availability of spare parts present a

big problem on all imported television and radio equipment.

I have read the foregoing and know its contents; the facts stated herein are true of my own knowledge.

/s/ JOHN THORPE
John Thorpe

Subscribed and sworn to
before me this 28th day
of September, 1965.
/s/ J. C. ALLEN
Justice of the Peace.

986 IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

AFFIDAVIT OF BEDE SOLOMONS

Commonwealth of Australia
State of New South Wales } ss.

I, Bede Solomons, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled cause, I would testify as follows:

1. I am the chief executive officer of Eric Anderson (Consolidated) Ltd. I am operating a chain of about 40 retail stores in Australia.

2. I have been in the radio business since 1934 and Eric Anderson's has handled television since 1956 when television was introduced into Australia. I am completely familiar with both the television market and the radio market in Australia.

3. Due to the Australian protective tariff barrier, there had never been a big percentage of imports of radios into Australia until the Japanese got established. In the last eight years there have been substantial imports of Japanese

pocket transistor radios into Australia. The Japanese got established in the Australian market because, when the first Japanese transistor sets came into Australia, none of the Australian manufacturers were making such pocket-sized transistor sets.

4. In a similar manner, it would have been possible for an importer to get established in the television business
987 in the very early days of television in Australia. The primary reason for this was that the demand for television sets exceeded the capability of the manufacturers to produce sets. This condition lasted through 1958. Another factor was that, since television was new, the brand names were not established with the public although most of the manufacturers had brand acceptance in the radio field.

5. In my opinion, Admiral was a successful newcomer to the television field because Admiral got established right at the beginning of television and had something no competitor had to offer, namely, the 21" screen. By 1958 or 1959, when Pope Motorola tried to enter the television market, it was too late. By August 1959, it would have been too late for an importer of standard size TV receivers to get established in the Australian market.

6. A temporary exception to this has been the importation of small portable television sets from Japan. The following portable Japanese sets are now being imported into Australia and marketed in significant numbers: the 12" screen "Princess" selling at 149 guineas; and the 6" and 8" screen "Sharp." Sony (another Japanese brand) has not been able to carve out a significant market share although Sony sets have been sold in Australia for a number of years. There are no locally manufactured portable television sets competing in the 6" and 8" screen size range. The General Electric 11" screen portable television sets, assembled in Australia partly from imported components, competes with

the Japanese portables. Although GE has had some success with their 11" screen they have had little success in selling standard size sets. In my opinion, as important as General Electric may be in the United States and possibly elsewhere in the world, the "GE" brand or name at present does not have any significant impact on Australian buyers.

7. Generally speaking, foreign brand names have difficulty competing against Australian brands. The Australian consumer has brand loyalty to the Australian radio and television manufacturers. In addition to brand loyalty, 988 the Australian public believes in and generally supports the "Buy Australian" campaign. All in all, local brands are much easier to sell than foreign brands.

8. At the present time, Eric Anderson's is not handling or selling any imported television sets. The main reason for this is that, when the import duties and shipping costs have been paid, the price is too high.

9. Also, I do not like to handle imported television sets because of the repair and service problems. Spare parts for imported television sets are an important problem to me and to other retailers. I would want to know that adequate quantities of spare parts were available in Australia.

10. The imported television sets have no features and no performance qualities that are not offered by the Australian manufacturers.

I have read the foregoing and know its contents; the facts stated herein are true of my own knowledge.

/s/ Bede Solomons
Bede Solomons

Subscribed and sworn to
before me this 1st day of October, 1965.

J. C. Allen, J.P.

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

990 **AFFIDAVIT OF NORMAN LEVY**

Commonwealth of Australia }
State of Victoria } ss.

I, Norman Levy, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern District of Illinois, Eastern Division, in the above entitled cause, I would testify as follows:

1. I am Managing Director of Sun Electric (Consolidated) Ltd. and Sun Electric Co. Pty. Ltd. with offices located at 562 Little Bourke St., Melbourne, Victoria. The operating company, Sun Electric Co. Pty. Ltd. (hereinafter referred to as "Sun") does substantial importing as well as manufacturing and distributing electrical equipment in every state in Australia, primarily to retail outlets.

2. In my capacity as Managing Director, I am responsible for and completely familiar with the importation of goods for Sun. I spend a lot of my time in countries other than Australia searching for products which Sun could import and sell at a profit.

991 3. The duty levied on the imported radio sets effectively prevents the importation of radio sets from the United States. I would not even consider importing radio sets from the United States.

4. Sun imports Japanese radio sets in substantial numbers. The bulk of these are the lower-priced Japanese sets. The mass market is for the cheap 6 and 8 transistor sets. The principal set imported by Sun is the "Toshiba" manufactured by Tokyo Shibaura Engineering Works.

5. The market in Australia for shortwave radio sets with two or three broadcast bands is not large. Sun imports

a limited number of Japanese radios to satisfy this demand.

6. I would not consider importing any radio set or other electric appliance without spare parts. Sun has thousands of pounds tied up in spare parts inventory. This is absolutely essential. Each Sun branch carries an inventory of spare parts.

7. Sun also undertakes to service every radio set sold by Sun. This is particularly advantageous in the sale of imported radio sets.

992 I have read the foregoing and know its contents; the facts stated herein are true of my own knowledge.

/s/ NORMAN LEVY
Norman Levy

Subscribed and sworn to
before me this 22nd day
of September, 1965.

/s/ R. G. EMANUEL
Justice of Peace.

IN THE UNITED STATES DISTRICT COURT

• • (Caption—59-C-1847) • •

993 AFFIDAVIT OF
WILLIAM GORDON WALLACE

Commonwealth of Australia
State of Victoria } ss.

I, William Gordon Wallace, being duly sworn, on oath depose and say that were I to be called as a witness to testify in the United States District Court for the Northern

District of Illinois, Eastern Division, in the above entitled cause, I would testify as follows:

1. I am in charge of buying television receivers and radio sets for Brashs Pty. Ltd., and am also ultimately responsible for the sales of radio sets and television receivers in the Brashs Pty. Ltd. stores. Brashs Pty. Ltd. operates a chain of nine retail stores in the State of Victoria, two of which are located in the city of Melbourne. In total volume of television and radio sales, Brashs Pty. Ltd. has between one-tenth and one-fifth of the volume of
994 television and radio sales enjoyed by Myer's of Melbourne.

2. As a result of my job I am completely familiar with the television and radio markets in the State of Victoria and with the feasibility of importing television receivers and radio sets into Australia.

3. The Australian public is extremely brand conscious and prefers Australian brands. I myself prefer Australian-manufactured television receivers.

4. Brashs Pty. Ltd. does not handle or sell imported TV sets from the United States or from Germany. Full size imported TV sets even from Japan become too expensive to sell in Australia when the import duty is added to the price of the set. Regardless of cost, I would not import American-made TV sets for Brashs Pty. Ltd. because, in my opinion, the quality of American TV Receivers I have inspected is not up to Australian standards. Australian-made TV sets are mechanically superior to the American sets. In addition American cabinetry is generally not acceptable to Australian consumers.

5. I did not import the 12″ screen "Princess" set manufactured by Nippon Columbia for the sole reason that after paying the import duty, Brashs Pty. Ltd. would need an

out-of-store price of £A.156/9 for each set in order to realize a reasonable profit. The price of £A.156/9 is too high to realize any volume of sales on a 12″ set. Several 6″, 8″ and 9″ Japanese Receivers were marketed by us in 1963/64, but these receivers are now priced too highly to achieve a reasonable sales volume.

6. I could not sell a 23″ American-made television
995 receiver if I had to set its retail out-of-store price at around £A.200. A most expensive fully automatic Australian-manufacturd 23″ console TV set with remote control handled by Brashs Pty. Ltd. sells, out-of-store, at £A.140.

7. Brashs Pty. Ltd. does not handle any American-made radio sets including the Zenith Transoceanic. We sell some expensive Japanese transistor radio sets with two or three shortwave bands. For example, the Japanese "National" sells at slight under £A.60.

8. Approximately 50% of all transistor radios sold by Brashs Pty. Ltd. are of Japanese manufacture. The records of Brashs Pty. Ltd. show the breakdown between Japanese and Australian transistor sets in five months of 1963 and at that time slightly over 50% of the sets were Japanese.

9. Duty and other charges are a serious handicap in marketing even the inexpensive Japanese transistor radio sets. For example, a Japanese set with an ex works price of 29 shillings sterling will cost £A.10 by the time it is landed in Australia and the import duty etc. paid.

10. Brashs Pty. Ltd. buy Japanese radios locally from importers who carry a stock of spare parts. The availability of spare parts is very important. In my experience most retailers prefer to buy from an Australian importer rather than try to import direct themselves.

• • •

997 I have read the foregoing and know its contents; the facts stated herein are true of my own knowledge.

/s/ W. G. WALLACE
William Gordon Wallace

Subscribed and sworn to
before me this 28th day of September, 1965.

/s/ R. EMANUEL, J. P.
Justice of Peace.

IN THE HIGH COURT OF JUSTICE, ENGLAND
QUEEN'S BENCH DIVISION
MASTER LAWRENCE, MASTER IN CHAMBERS

IN THE MATTER OF the Foreign Tribunals Evidence ACT, 1856 (19 and 20 Vict. C. 113)

AND IN THE MATTER OF a Civil Proceeding now pending before the United States District Court, Northern District of Illinois, Eastern Division intituled as follows:—

BETWEEN:

HAZELTINE RESEARCH, INC.
Plaintiff-Counterdefendent

and

ZENITH RADIO CORPORATION
Defendant-Counterclaimant

Upon reading the Affidavit of George Warren Staple filed on the 3rd day of September, 1965 and the Letters Rogatory exhibited thereto that proceedings are pending in the United States District Court in the Northern District of Illinois, Eastern Division in the United States of America and that such Court is desirous of obtaining the testimony of Adam Ratusuiak Ramsey, otherwise known as Adam Ratuszniak Ramsey.

• • •

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

HAZELTINE RESEARCH, INC.,
Plaintiff
VS.
ZENITH RADIO CORPORATION,
Defendant

Deposition of witness, produced, sworn and examined at the American Embassy, Grosvenor Square, London, England, before Ray E. White, Jr., Consul of the United States of America, commencing on the 15th day of September in the year One Thousand Nine hundred and Sixty-five, under and by virtue of a Notice dated the 6th day of September, 1965, issued by the attorneys for the plaintiff and original letters rogatory issued on August 26, 1965, out of the United States District Court for the Northern District of Illinois, Eastern Division, in the captioned suit and in pursuance to the Order of Master Lawrence, Master in Chambers, Queens Bench Division in the High Court of Justice of England.

* * *

28 DIRECT EXAMINATION by MR. KAYSER

Q. Mr. Ramsay, have you given your full name as it appears on the order?

A. There is a mistake in my name on the order.

29 Q. Would you spell it?

A. A-d-a-m R-a-t-u-s-h-n-i-a-k R-a-m-s-a-y.

* * *

32 Q. Do you have any copies of conversion instructions or manuals for converting Zenith television sets for use in the United Kingdom?

A. We have our own notes from our Service Department which we are doing for our own purposes.

Q. You have no conversion instructions or manuals which you received from Zenith?

A. Not their conversion to the British system, no.

Q. You have some instructions for conversion to other systems?

A. The European system.

Q. You mean a 625 line screen?

A. That is correct, yes.

Q. In other words, you do not have instructions to convert to the 625 line system of the third band in the United Kingdom?

A. No, because we do not sell televisions at the time being in England.

33 Q. Have you any instructions for the conversion of the U.S. sets to the 405 line screen?

A. No, we do not.

Q. What is the reason for that?

A. Because we do not sell television sets in England, so there is no reason.

• • •

37 Q. In the course of your business was it your practice to release information to the Trade Press concerning the products that you had for sale?

A. Yes, we did.

Q. Do you have copies of any of those releases?

A. No, we did not keep all the copies; we do not keep a scrapbook here.

Q. Did you keep some of them?

A. No, we sent them to Chicago.

Q. You mean to Zenith?

A. To Zenith, yes.

• • •

50 MR. KAYSER: When did you first give thought to the importation of radio and television sets into the United Kingdom?

MR. McCONNELL: I object to that. That assumes that he had given some thought to it.

A. Beginning of June 1959.

MR. KAYSER: You mean the thought of importing radio and televison sets did not enter your mind until June 1959?

A. No, because it was done on the suggestion of an outsider.

Q. Who was that outsider?

A. One of the Zenith distributors in the Middle East.

Q. Who was that?

A. A man called Mr. Syislotzky, who visited me in June 1959 and suggested that we take up the distribution of Zenith in England if Zenith would be willing to grant it.

Q. When and where was that suggestion made?

A. In London, beginning of June, 1959.

51 Q. Where?

A. In my office, I think.

Q. What was the occasion of his visit to your office?

A. I knew the man for numerous years, and every time he visited London, he was visiting me.

Q. What country was he from?

A. Israel.

Q. What city?

A. Tel Aviv.

Q. He was the Zenith distributor there?

A. Yes.

Q. In early June he suggested you got a Zenith distributorship for the United Kingdom?

A. That is correct.

Q. Then what did you do?

A. I knew Zenith by its name and by its reputation, and I said: "Yes, if you can secure the distribution for me, I would be willing to do it".

Q. What was the name of this man's company in Israel?

A. The name, Svislotzky Brothers, I think. There were two brothers.

Q. After you said you would be willing to take on the Zenith distributorship, what happened next in that regard?

A. He telephoned Zenith from my office and suggested that I go over to Chicago, where he would meet me and introduce me to the Zenith people.

Q. Did you go?

A. Yes, I did.

52 Q. When?

A. It must have been about 8th or 10th or 6th, or something like that.

Q. Of June?

A. Of June, yes, after I spoke with him.

Q. Could you fix that date more exactly; from your passport, for example?

A. No. The passports are not being stamped, and, anyway, I would not have a passport relating back to 1959. Since then I must have had a few passports.

Q. You think it was June 6th, 8th or 10th, 1959?

A. It was in early June 1959.

Q. You went to the United States?

A. I went to the United States, yes.

Q. Where did you go?

A. I went to Chicago.

Q. Whom did you see?

A. I booked into a hotel. I was waiting for Mr. Svislotzky, who was somewhere else in the United States, and he took me to the Zenith offices.

Q. Where was that?

A. In Dickens Avenue.

Q. Who did you meet there?

A. The head of the International Division, Mr. Miguel.

Q. His first name?

A. John.

Q. What happened when you met Mr. Miguel?

A. We discussed for a few hours, and the next day he told me that he is prepared to grant us a distribution.

53 That was the first time I met him.

Q. What did you discuss at this first meeting of three or four hours?

A. The way I imagined distributing, and just general commercial questions.

Q. What did you tell him as to how you imagined distributing?

A. I gave him my ideas of distribution.

Q. What did you tell him?

A. It is difficult to recall every detail of it.

Q. Do your best.

A. In broad outline, that we should be importing the goods; we shall promote them; we shall appoint dealers; we shall do the servicing and look generally after business.

Q. Was this to be radio and television?

A. As far as televisions were concerned, I understood that we cannot distribute televisions.

Q. Why not?

A. At that time it was not told to me exactly why, but they said they have certain reasons for which they cannot send televisions to England.

Q. You said you also discussed certain commercial problems.

A. Yes.

Q. What were they?

A. Normal question of calculation, servicing, spare parts, publicity, advertising—all the normal commercial aspects.

Q. On the next day you were told you had the distributorship?

A. Yes, on the next day Mr. Miguel told me that he is willing to do it.

54 Q. Was this the first time that you had ever met anyone from Zenith Radio Corporation?

A. That was the first time in my life, except about fifteen years ago I ordered a spare part for my own radio from Zenith. That was the only contact I ever had with them.

Q. You never had any correspondence with them at all?

A. None whatever.

Q. None whatsoever?

A. No.

Q. Nor United Mercantile Company?

A. No. The first letter ever written was after my return to London, where I just thanked them for the confidence shown and for the reception, and so on. I had never met anybody before.

Q. Did Zenith have any information as to the financial position of your company at that time, do you know?

MR. McCONNELL: I object to what Zenith had. How in the world can this witness testify as to what Zenith had?

A. I do not know.

MR. KAYSER: They met you one day and gave you the distributorship for the whole United Kingdom the next?

A. On the basis of a man who was a distributor I believe for about 25 years. I do not think I would have got it if I just walked in and asked for it.

MR. McCONNELL: And I object to Counsel's characterisation of the distributorship contract. I do not know what it provides, and we have not got it here.

55 MR. KAYSER: You were given the sole distributorship for the United Kingdom, were you not?

A. That is correct.

* * *

57 Q. At the time you went to Chicago and got this distributorship, had you ever had any dealings in the import or sale of radio sets or television sets?

A. No, never.

Q. At that time did Zenith have another distributor in the United Kingdom?

A. I do not think so.

Q. You never heard of any?

A. No.

Q. What experience had you had with the distribution of consumer items?

A. In which respect?

58 Q. In distribution in the United Kingdom.

A. I think any man who has certain business experience is able, according to his own intelligence and mind, to organise the distribution of any commodity.

Q. Had you had any experience in the distribution of consumer items in June, 1959?

A. How do you restrict the consumer items? We were importers of glass items or textiles. They were consumer items.

Q. To whom did you sell the items that you imported?

A. To dealers, to wholesalers.

Q. You sold them to wholesalers; and anyone else?

A. Not to the public, no.

Q. Did you sell them to retailers?

A. Yes, to retailers, which is like dealers.

Q. Did you sell to retailers throughout the United Kingdom?

A. Yes, the whole country covering.

Q. What i[redacted]

A. As I sai[redacted]ware and textiles.

Q. Had you ever sold any goods to electrical appliance dealers?

A. No.

65 Q. You became so well acquainted with these people on the trip?

A. No. I went again about three or four months later.

Q. How often did you go to the United States between June 1959 and May 1963?

A. About 12 or 14 times.

Q. For what purpose?

A. Discussing various matters.

Q. Did anyone from Zenith ever come to England for that purpose?

A. We had a short visit of Mr. Miguel, but I do not know if it was purposely to discuss with me. He was just passing, I think, from the wedding of his daughter, through London.

Q. When was that?

A. That was in January this year.

Q. And you had no visitors from Zenith between June 1959 and May 1963?

A. Not on official business, no.

66 MR. KAYSER: What financial information, if any, did you give Zenith in your June 1959 visit?

A. There was very little to give. Arrangements were made that all our purchases are made against letters of credit or payment in advance, and I have done so placing the first order. I paid it in advance.

Q. They made no enquiry on your financial standing?

A. I do not know.

Q. What was the incorporation of United Mercantile at that time?

A. It was a capital of £10,000, paid up, I believe, or paid up the first 6 or something and then another amount, and then it was increased.

67 Q. To how much?

A. To £30,000.

Q. When was it increased?

A. About two years later, or maybe 15 months, 18 months later. I do not remember exactly. There is a record of it. It should be in the Companies Registrar's files.

Q. I understand that no-one from Zenith came over to check your facilities before they gave you the distributorship?—I mean physical facilities.

A. No.

• • •

68 MR. KAYSER: Where were the United Mercantile offices when you first started business?

A. The original address was Park Ledge in Knightsbridge.

Q. Did you continue in those quarters after you became the Zenith distributor?

A. Yes, I did.

Q. What was the size of those facilities, how many rooms, and what were they equipped to do?

A. We had three rooms on the ground floor. Then we took three rooms on the first floor. Then we took three rooms on the third floor; and then we moved to our present premises.

Q. Which are where?

A. At 13-14, Queen Street, Mayfair, W.1.

69 Q. When did you move to your present quarters?

A. We moved to our present quarters at the end of 1960 or 1961. I would have to check on the date. It was about November 1960 or 1961.

Q. When did you first import a Zenith radio?

A. The first consignment came to England (I believe it was) the beginning of September; August or September 1959.

Q. Did you import any television sets at that time?

A. No.

Q. When did you first import a television set?

A. We imported a few television sets in 1963 and they were intended for re-export.

Q. Were those American sets?

A. American standard sets.

Q. 525?

A. Yes.

Q. To where did you intend to export those?

A. They were purchased by members of the Argentinian Embassy and Argentinian Mission in London for shipment to Argentina.

Q. You had a reception for the Press, I believe, did you not, when you got the distributorship?

A. Yes, that is correct.

Q. When was that?

A. I think it must have been about August 1959, because we did show them some goods. It was August or September.

Q. What was the purpose of that reception?

A. To let know the Press that Zenith Radio Corporation starts distribution in the United Kingdom.

Q. Were representatives of the Trade Press there?

A. Mainly Trade Press, and National Press.

Q. Did you have any dealers there?

A. Not at that reception. That was purely a Press reception.

MR. KAYSER: Mr. McConnell, we have here a number of bound volumes of trade publications. We also have reproduced copies of the pages as to which I will ask the witness, and I assume that pursuant to our previous stipulation we can have the reporter mark the reproduced copies. At least, I am proceeding on the basis of that understanding and stipulation.

MR. McCONNELL: I don't know what you are producing and I don't know what you have got. So, if you want a statement from me on the record, you had better show it to me.

MR. KAYSER: I show the witness a bound volume, headed "Electrical Trading, August-September 1959", and call his attention to page 62 of the issue of August 22, 1959, specifically calling his attention to the article headed "Zenith radios and stereo appeal to quality trade".

THE WITNESS: That is correct. That was the time, I think, of the Press reception in late August.

MR. McCONNELL: Could I see the document now? (Bound volume handed to Mr. McConnell). Now what do you want to do, Counsel?

MR. KAYSER:: I would like to ask the witness if the

information given there concerning the Press conference is correct.

MR. McCONNELL: I object to that sort of a question. It is leading, suggestive, and you are asking him what
71 somebody else's statements mean; and I guess it is cross-examining your own witness. It sounds like it to me.

THE WITNESS: What was the question? I am sorry.

MR. KAYSER: I asked you to examine that article and asked whether or not the statements made there are correct.

A. Well, it is an editorial by "Electrical and Radio Trading". In substance it is correct. I could not even say to-day whether the prices quoted by them are correct. Our name is correct. Our address is correct.

Q. Did you hand out a Press release?

A. We did have a Press release, yes.

Q. Will you see if you can find it, and, if so, produce it?

A. If I have it, but I do not know.

MR. KAYSER: I will ask the reporter to mark as Plaintiff's London Deposition Exhibit No. 33 for identification a copy of page 62 of the trade publication to which we have just been referring.

(Photostat of page 62 of "Electrical Trading, August-September 1959" marked "Plaintiff's London Deposition Exhibit No. 33 for id.").

• • •

72 MR. KAYSER: Do I understand, Mr. Ramsay, that you say that this article is in substance a correct report?

A. Yes.

MR. McCONNELL: He has also said he did not know whether the prices were right or not.

MR. KAYSER: Are you familiar with *this* publication, the "Wireless and Electric Trading"?

A. Yes.

Q. What is it?

A. One of the trade papers concerned with the elec-
73 trical and radio business in this country.

Q. It is pointed out to me that the publication that we have there is the "Electrical and Radio Trading". Are you also familiar with that publication?

A. Yes. That is the one we are talking about.

Q. What is the nature of that publication as you know it?

A. It is a trade paper.

Q. How often is it published?

A. I believe it is a weekly. I am not sure.

MR. McCONNELL: I want to object to this line of cross-examination, on the ground that it has no single thing in the world to do with import restrictions, which is the guise under which you call this witness.

MR. KAYSER: Do you know the class of people, or the class of business people, to whom this publication is distributed?

A. No doubt it is designed for radio and electrical dealers.

Q. Retail dealers?

A. I would say so. At least, the title gives this guidance.

Q. You have, I believe, from time to time given information on Zenith products to this publication, have you not?

A. Yes.

Q. For what purpose do you give that information?

A. To print it in the publication.

Q. So that dealers may know what is available?

A. That is correct.

Q. In these releases to "Electrical and Radio Trading" it has been your practice to give information concerning the Zenith radio set?

74 MR. McCONNELL: I object to his practice. How does that prove anything in this law suit? Whatever he did, he did, but I think we are entitled to the evidence.

MR. KAYSER: I think we are entitled to know what he did.

Q. Would you answer the question?

A. Yes, we do.

Q. Did that also include information as to the suggested retailer's price?

A. In England there is no suggested retail price. There is retail price.

Q. Are you also familiar with a publication known as the "Wireless and Electrical Trader"?

A. Yes.

MR. McCONNELL: I am sure Judge Austin is going to be agreeably surprised to see all these books on the issue of embargo.

MR. KAYSER: I call to your attention page 118 of the August 22, 1959, issue of "Wireless and Electrical Trader," particularly the article headed "Zenith go for the quality market."

A. Yes.

MR. McCONNELL: Would you mind letting me see it before you examine the witness on it?

MR. KAYSER: Surely. (Bound volume handed to Mr. McConnell)..

75 MR. McCONNELL: I am objecting to this. He has produced a book here and asked questions about it and then he takes excerpts out of it. If you are going to use those books, I want them marked and everything in it. I am not going to have some excerpted thing out of a book. A further reason for that is that it appears right in the book that the prices of the competitors' products are there in advertisements.

MR. KAYSER: I will ask you, Mr. Ramsay, whether the information stated in that article is correct.

MR. McCONNELL: I object to his characterising the article in any such wholesale method as that. It is leading. It is suggestive. It is cross-examining his witness.

THE WITNESS: Yes, it is in substance correct.

MR. KAYSER: Do you see anything in there which appears to you to be incorrect?

A. No.

MR. KAYSER: I will ask the Reporter to mark as Plaintiff's London Depositions Exhibit No. 34 for identification a copy of said page 118 of the August 22, 1959 issue of "Wireless and Electrical Trader."

(Copy of page 118 of August 22, 1959 issue of "Wireless and Electrical Trader" marked "Plaintiff's London Depositions Ex. No. 34 for id.")

* * *

106 Q. Do you have with you the distributorship agreements between you and Zenith Radio Corporation?

A. Well, I have some of them, because the only one which is important is the last one, they are yearly agreements. Now I would like to mention, Mr. Commissioner, that yesterday I had not got this, but when I looked into it, the Summons asking me to appear and testify says I had to produce, in substance, all the documents relating to correspondence between myself and Zenith Radio Corporation. In fact this correspondence ceased on the 1st January, 1960. Since 1960 a Company called Zenith Sales Corporation became the counter-party which we were dealing with and our agreements after the 1st January, 1960, are with Zenith Sales Corporation. Now with Zenith Radio Corporation we had some correspondence relating primarily to hearing aids, pay T.V. and some private matters. Now Zenith Sales Corporation is, as far as I know, a complete legal entity with a separate Board, separate Directors, separate management, separate offices.

Q. Your contracts beginning in 1960 were with Zenith Sales Corporation, which you distinguish from Zenith Radio Corporation, the Defendant and Counterclaimant in this case?

MR. McCONNELL: He is not ordered to produce anything from Zenith Sales Corporation.

107 A. Well, I do distinguish. They may be father and son, but they are two different beings.

* * * —

110 MR. KAYSER: Do you know whether or not you had the written agreement with Zenith until January, 1960?

A. I believe I did, as far as I can recall; but it is six years with all sorts of things happening in between.

Q. Did you make a search to see whether or not you had it?

A. In fact I can make an additional search yes, definitely. I would like to find it.

Q. Were you given any explanation as to why your new agreement was to be with Zenith Sales Corporation?

A. I think there was a circular letter—I believe so; and from the 1st January all business has been taken over by Zenith Sales Corporation.

Q. Do you have that circular letter?

A. No.

Q. Have you looked for it?

A. Yes, it is not in this correspondence or the general correspondence.

Q. What were the terms of your agreement with Zenith Sales Corporation?

A. Well ——

MR. McCONNELL: I object to his agreement with Zenith Sales Corporation. There is no issue between Zenith Sales Corporation that I know of.

MR. KAYSER: You mean between Zenith Sales Corporation and Hazeltine Research?

MR. McCONNELL: Hazeltine Research?

MR. KAYSER: You said there was no issue between Zenith Sales Corporation. I wondered between Zenith Sales Corporation and whom?

111 MR. McCONNELL: There is no issue here. We have a law suit for Zenith Radio Corporation, which you know full well, and there is nothing in the order that compels this witness to produce anything from Zenith Sales Corporation, and I object to his producing anything from there or having it brought in on this Deposition.

MR. KAYSER: What was the date of your agreement with Zenith Sales Corporation?

MR. McCONNELL: I object to any questions on that as not within the issues of this case.

MR. KAYSER: I would like to make a statement for the record, and that is that we have an Order from Master Lawrence for the oral examination of this witness.

MR. McCONNELL: On the issues in this case.

MR. KAYSER: That is right.

MR. McCONNELL: Yes, and there is no issue in this case relating to Zenith Sales Corporation. They are not a party to the case and there is no issue between them, and I object to this witness testifying on any issue on that question, and he is not ordered to do it either.

MR. KAYSER: What is the date of your first agreement with Zenith Sales Corporation?

MR. McCONNELL: I object to that.

THE WITNESS: Should I answer this question because, Mr. Commissioner, I am getting very confused because of argument between Counsel, and I really do not know what my duties are.

MR. McCONNELL: He has his own Counsel here, he can confer with him.

112 (The witness conferred with Mr. Sturge and Mr. Levinson)

A. I understand, from instructions from my Counsel, that I am not compelled to answer any question relating to Zenith Sales Corporation.

MR. KAYSER: Have you been a distributor for Zenith

Radio Corporation at any time after January 1, 1960?

A. For one division of Zenith Radio Corporation.

Q. Which division is that?

A. The hearing-aid division.

Q. You have not been a distributor for Zenith Radio Corporation since January 1, 1960, either as to radio sets or television sets?

A. No.

Q. To your knowledge has Zenith Radio Corporation had a distributor in the United Kingdom since January 1, 1960, for radio sets or television sets?

A. Not as far as I know.

Q. Did your contract with Zenith Sales Corporation give you the exclusive right to sell the products of Zenith Radio Corporation?

A. That is the same question as before, which I understand I do not have to answer.

Q. Did you have any right to sell in the United Kingdom, beginning with January 1, 1960, as distributor, any of the radio products or television products of Zenith Radio Corporation?

MR. McCONNELL: I object to that as calling for a legal conclusion as to who the title in these properties is and who he was dealing with. The best evidence of his
113 relationship is in the written contracts and you have not ordered them in here. They are not under subpoena and the witness has refused—properly in my view—to produce them, and I object to examining him on the contents of a document not in evidence which I assume, if you are entitled to it, you could get an Order for. Why don't you go to Judge Austin and ask him and see how far you get now with this? You slipped through the Order when I was over here in England and let's see if you can get it with my opposition.

MR. KAYSER: I do not think your son would like that

characterisation.

MR. McCONNELL: I don't care; you slipped it by him, apparently.

MR. STABLE: I would like to say that the procedure pertaining to the Order of Master Lawrence cannot properly be described as "slipped by". It was obtained in accordance with the Rules of the Supreme Court in this country and they were strictly complied with.

MR. McCONNELL: Counsel, you are a very sensitive gentleman. I was not talking about you at all.

MR. STABLE: The process in England is an English process, and in accordance with that process I acted for Hazeltine.

MR. McCONNELL: Don't put on the shoe unless it fits. I have not made any comment about you or your conduct in this country, I am talking about what happened in Chicago.

MR. STABLE: No, you were talking about slipping this by in England.

MR. McCONNELL: I know what I am talking about. Don't tell me what I am talking about.

114 MR. STABLE: What was said that we slipped it by ——

MR. McCONNELL: No, I did not say any such thing.

MR. KAYSER: I think, Mr. Stable, obviously what he was talking about was me and the Chicago Court, and I guess we can both stand that.

Q. Were you told, Mr. Ramsay, whether there was any relationship between Zenith Radio Corporation and Zenith Sales Corporation?

MR. McCONNELL: I object to that. If there is a relationship and what it is can be proven in Chicago by proper legal evidence.

MR. KAYSER: It is a proper circumstance involved here, and will you, please, answer?

A. I was not told. I was faced with fact, and that is all.

Q. Do you know who manufactures the radio sets you have been selling in the United Kingdom?

A. Well, I think it is Zenith Radio Corporation and some outside factories, who are different.

Q. What products were you authorised to distribute under your 1959 agreement with Zenith Radio Corporation?

A. Radios and phonographs, and combinations of radios and phonographs, record players.

Q. That is all?

A. That is all.

Q. Radio phonographs in England, I believe ——

A. Are radiograms.

Q. A phonograph is called a gramophone?

A. A phonograph is called a radiogram.

Q. What is a combination radio and phonograph?

A. Well, that is a radio-gram. If it is without radio 115 it is described in England as a record player.

Q. It is not called a gramophone?

A. No.

Q. I understand, then, Mr. Ramsay, that you take the position that Zenith Sales Corporation is a different Company than Zenith Radio Corporation?

A. I believe it is.

Q. And that your distributorship in the United Kingdom, beginning January 1, was with Zenith Sales Corporation?

A. That is correct.

Q. But so far as you know the products which you distributed are the products of Zenith Radio Corporation?

A. Not only.

Q. Not only?

A. Well, I believe there are some outside factories which are manufacturing for Zenith too.

Q. For Zenith Radio Corporation?

A. I believe so, I am not sure.

Q. I think you said that from time to time you gave releases to the Trade Press and you also had interviews with reporters or representatives of the Trade Press. Did you also have interviews with people from the non-trade Press, namely newspapers?

A. Yes, I believe so.

Q. Did you ever have an interview with anyone from the "Evening Standard"?

A. Possibly, yes.

Q. That is a London newspaper?

116 Yes, it is.

Q. With general circulation here in London?

A. Yes.

Q. Do you recall an interview with a representative of the "Evening Standard" in about October, 1962?

A. No, because there were so many different discussions with various people that one cannot identify one particular conversation.

Q. Do you recall telling a representative of the London "Evening Standard" in about October, 1962 ——

MR. McCONNELL: I want to object to this question before you answer it.

MR. KAYSER: I would like to finish it.

MR. McCONNELL: Go right ahead.

MR. KAYSER: Do you recall having an interview with a representative of the "Evening Standard" in about October, 1962, when you stated that you had founded Mercantile approximately three years ago specially to import Zenith products?

A. No, I do not think I could have said such a thing because that would not be the fact.

117 MR. KAYSER: I will ask the Reporter to mark as Plaintiff's London Depositions Exhibit No. 37 for identification, a reproduction of a page of the "Evening Standard" for October 25, 1962.

(Page from "Evening Standard" of October, 25, 1962, marked "Plaintiff's London Depositions Ex. No. 37 for id.)

MR. McCONNELL: I did not get a chance to make my objection before the witness answered, so I will make it now. First, it is hearsay. In 1962 the witness was not working for Zenith Radio Corporation in any capacity. He had no contract with them, and the conversation took place outside the presence of any representative of Zenith Radio Corporation, if it existed, and therefore is hearsay. Secondly, it is a leading and suggestive question to your own witness and bad in form. Thirdly, I do not know what that document is, but it certainly is not a page of any paper that has been identified in this proceeding.

MR. KAYSER: I will show the witness Plaintiff's London Depositions Exhibit No. 37 for identification and——

MR. STURGE: I would like to see this.

MR. McCONNELL: I would like to see it, too, before you examine the witness on it.

MR. STURGE: There are rules about this sort of thing.

MR. McCONNELL: He does not pay any attention to rules. (*Document handed to counsel*). I object to you cross-examining your own witness on that document.

MR. KAYSER: I suggest that the record makes it abundantly clear as to the place where this witness sits.

THE WITNESS: What do you want me to do with this?

MR. KAYSER: I would like you to read that article headed "Zenith Success" and I ask you if it refreshes
118 your recollection as to what you told the representative of the "Evening Standard".

MR. McCONNELL: I object to counsel's testimony that the witness told him anything. He has just told you he did not tell him that. I move to strike ont your gratuitous remarks.

THE WITNESS: It is a beautiful story. That is all I

can identify it as.

MR. KAYSER: Can you tell me what portion of it you believe not to be true, if any?

MR. McCONNELL: I object to his characterising what is or is not true in somebody else's article. He did not write the article. He has no responsibility for it. You are cross-examining him on somebody else's statements and making the witness go down and categorically say this and that. I object to it. It is not proper cross-examination.

THE WITNESS: There are a few parts which I do not agree with.

MR. KAYSER: Which are they?

A. That the demand was quite fantastic. The demand was good, but "fantastic" is a newspaper expression for maybe something good. I cannot remember about the dock strike, whether there was one. The part about United Mercantile is not correct, definitely. The part about T.V. is not correct.

Q. And the reference to the size of Zenith?

A. It is difficult to say, because one would have to make numerous calculations to find out whether it is correct or not.

Q. Is it true that selling of Zenith products here had been hard going because of the high purchase tax?

A. No, but that was a general subject of all the press in England for many years.

119 Q. It is a fact that Zenith products were more expensive than those of the radio products and those of the other sets which were being sold in the United Kingdom?

MR. McCONNELL: I object to this as an improper way of examining your own witness. It is cross-examination and it is calling on this witness to conclude a whole branch of this law suit. What the prices are among the competitors and all of that is not before the witness. He is being examined on somebody else's statements which he has no respon-

sibility for. I object.

MR. KAYSER: That question had to do with his knowledge, I believe, of the English market, where he has experience.

MR. McCONNELL: You are cross-examining now. This is your witness. You have no right to cross-examine this witness.

MR. KAYSER: We have a question pending.

A. Yes, but I am afraid I forget what it was.

(The Reporter read the question: "Is it a fact that Zenith products were more expensive than those of the radio products and those of the other sets which were being sold in the United Kingdom?")

MR. McCONNELL: If he knows.

THE WITNESS: Yes, they are, and that is quite justified, because of their quality, design, and so on.

MR. KAYSER: Are there any other statements in that article that you would consider to be untrue?

A. Not untrue. I do not know. Here it says, "Zenith is known as the 'gee-whiz' firm on Wall Street: £350 invested in its shares in 1935 would be worth £700,00 today!" That would require some calculations.

MR. McCONNELL: I think this is a most unfair way to examine a witness, your own witness particularly, 120 asking him whether a newspaper article is true and about all sorts of statements in it, and we do not even know if it is a newspaper. You have not even identified that yet. I move to strike it all out.

MR. KAYSER: Do you recall having had a meeting with a representative of the "Evening Standard" at any time?

A. As I said, we were meeting several people and therefore it is difficult to say about one particular meeting with one particular person. I do not think it says the name. I

do not know if the name was mentioned.

Q. Do you recall meeting anyone from the "Evening Standard"?

A. When we had press conferences there were, say, fifty people there, so one was meeting them without even knowing which newspaper they were from, what they were or who they were.

Q. Do you recall meeting a Mr. William Davis of the "Evening Standard"?

A. I do not think I ever met him.

Q. What portion of the shares of United Mercantile did you own when it was organised?

A. All except one.

Q. That was 17,999 out of 18,000?

A. That is correct.

Q. Who owned the other share?

A. Mrs. G. M. Salmon.

Q. Who is she?

A. She is my secretary.

Q. Is the share ownership still the same?

A. Yes.

Q. You are the managing director of United Mercantile Co.?

A. I am.

121 Q. You are the gentleman who makes the decisions and sets the policies?

A. Yes, when I am in the office.

Q. In June 1959, when you got the Zenith distributorship, there were two television programmes or bands in the United Kingdom, were there not?

A. Yes.

Q. What were they?

A. The B.B.C. and the Independent Television Authority transmitters.

Q. That is what is known as—

A. The I.T.V.

Q. What was the picture line transmission at that time?

A. 405 lines.

Q. 405 lines per picture?

A. It is 405 lines per second, I believe. It is rather technical.

Q. What was the number of lines used in the United States?

A. 525.

Q. Does any country other than the United Kingdom have the 405 line transmission?

A. Yes.

Q. Which?

A. I believe some of the colonies and overseas territories. I believe Hong Kong has 405. I think some of the African countries have, and countries in the Mediterranean. I do not know exactly which ones.

Q. Do any countries on the continent have 405 lines?

A. No, I do not think so.

Q. Does Canada?

A. I think that Canada has the American system.

122 Q. Would a U.S. television set designed to receive 525 line programme receive the United Kingdom 405 line programme?

A. It would require a modification.

Q. Would it receive the programme as produced for the American market?

A. No.

* * *

127 MR. KAYSER: Referring to page 329 of "Radio Retailing", which you have been testifying about, I would like the Reporter to mark as Plaintiff's London Depositions Exhibit No. 38 a copy of page 329 of that publication bearing the article "Zenith Comes to U.K.", which Zenith

counsel can of course compare to see whether it is an exact copy.

MR. McCONNELL: Let me ask you a question, Mr. Kayser. Did you make a photostat yourself or under your supervision or control?

MR. KAYSER: It was made under the supervision of Clifford Turner & Co., solicitors.

MR. McCONNELL: All right. Mark it. Let us get on with it.

(Copy of page 329 of "Radio Retailing" marked "Plaintiff's London Depositions Ex. No. 38 for id.")

128 MR. McCONNELL: These documents that you are using—leave them around, will you, because when I get to them in my examination I am going to mark some of them.

MR. KAYSER: Mr. Ramsay, I show you a photostat of the letter produced by Zenith in this litigation as a part of Zenith's bulk Exhibit No. 112, which is a copy of a letter dated September 14, 1961, from Mr. Semonoff of the International Division addressed to you, Mr. A. R. Ramsay, and ask you if you received the original of that letter?

MR. McCONNELL: Before you start examining on it, let me see it.

(Document handed to counsel and then passed to the witness)

THE WITNESS: That is correct, yes.

MR. KAYSER: You received that letter shortly after the date it bears?

A. Yes.

Q. Would you produce the original of it, please?

A. That is, again, Zenith Sales Corporation.

Q. I asked you: could you produce the original of it?

MR. McCONNELL: You have already got that produced from Zenith. You do not have to produce it again.

THE WITNESS (*after consulting his legal advisers*): I understand from my counsel that I do not have to, under

the order. There is no order to produce it.

MR. KAYSER: Did that letter have to do with products of Zenith Radio Corporation?

MR. McCONNELL: I object to that. The letter speaks for itself.

129 MR. KAYSER: Would you answer the question, please?

A. Yes, it does.

Q. Do I understand that you refuse to produce the original?

A. Yes, in accordance with the order.

Q. Is this your interpretation, or is this the advice of your counsel?

MR. STURGE: He is not a—

THE WITNESS: Well, my counsel is myself.

MR. McCONNELL: Counsel wants to look at the document. Can we see it for a moment?

MR. KAYSER: Surely.

(Document handed to counsel)

MR. McCONNELL: I think this falls within the terms of the order. I think the witness should produce it, if he has got it. I have not any objection to his producing the original of it, if he has got it. Counsel already has a copy from our files which shows its authenticity.

MR. KAYSER: Do you admit its authenticity?

MR. McCONNELL: Why, sure? Anything you got out of my files, of course I admit its authenticity.

MR. KAYSER: In other words, you will not raise the question that we do not have the original?

MR. McCONNELL: No, sir.

MR. KAYSER: I ask the Reporter to mark that.

MR. McCONNELL: I will note for the record, however, that that was available to you from the time the case was tried. Either you did not use it or you saw it had no materiality.

130 MR. KAYSER: The fact of the matter is, as I understand it, Mr. McConnell, that this was one of the bulk exhibits that you offered at the trial.

MR. McCONNELL: No, you are wrong. You were not at the trial and you just get the thing all mixed up because you were not there.

(Copy of letter dated September 14, 1961, marked "Plaintiff's London Depositions Ex. No. 39 for id.")

131 MR. KAYSER: Who was Mr. W. Semonoff?

A. One of the employees in the International Division of Zenith Sales Corporation.

Q. The first sentence says: "The information in this letter and also the enclosed material will tend to deal with your possibly introducing Zenith television in the United Kingdom, in the very near future". Do you have the material enclosed with that letter?

A. Yes.

Q. Would you produce it, please?

MR. McCONNELL: I do not think he has to produce it. It is from the International Division of Zenith Sales Corporation. He is not under any order to produce it. I said I would give you that letter. You produce that in Chicago.

MR. KAYSER: I believe I have a question to the witness; not to Mr. McConnell.

MR. McCONNELL: I did not answer any question. I made an objection.

THE WITNESS: Yesterday great emphasis was put on technicalities and the proper conduct, and, therefore, I do not want to start breaking my own objection to produce any correspondence with Zenith Sales Corporation.

MR. KAYSER: Will you produce the material that was enclosed?

A. There is no order for me to do so.

Q. Did that material have to do with products of Zenith Radio Corporation?

A. Yes.

Q. Can you tell me what it said about the products of Zenith Sales Corporation?

132 A. How to convert a set to the C.C.I.R. standard, which is the European standard.

Q. Could you give me the exact words of the instructions?

A. Oh, no.

Q. Then could you produce the document as the best evidence?

MR. McCONNELL: He is not under any order, as I understand it, to produce something with the Zenith Sales Corporation. You did not get any such order in Chicago, and you certainly have not got one here.

MR. KAYSER: I understand you refuse to produce those instructions?

A. Yes. We are coming back to the first question.

Q. I would like to call to your attention, Mr. Ramsay, that in this order it refers to "conversion instructions or manuals for converting Zenith television sets for use in the United Kingdom".

A. That is correct, yes.

Q. This had to do with Zenith television sets?

A. You are not asking for conversion manuals. You asked me for details attached to this letter, which are different things.

Q. Conversion manuals or instructions.

A. Yes, I have conversion manuals.

Q. I am asking for the conversion instructions, which I understand you indicated was the material enclosed with this letter.

A. No, I do not think so, because conversion instructions are printed sheets by Zenith Radio Corporation, available to any distributor in the world.

Q. Are you refusing on the ground that these are not

printed instructions?

133 A. No. You asked me to produce the enclosures to this letter, which were from Zenith Sales Corporation, and therefore I refused to do so.

Q. And I called to your attention that the order referred to—

A. I have not finished; I am sorry.

Q. All right.

A. But if you ask me for conversion manual of Zenith Radio Corporation, I will produce it.

Q. All right. I will ask you for the conversion manual of Zenith Radio Corporation.

A. Here they are. (Produced).

Q. When did you receive those?

A. From time to time, because the conversion varies from chassis to chassis and model to model.

Q. You have produced two books with black covers, headed "Zenith Service Manuals", one of which also has the letters on the back C.C.I.R"; is that correct?

A. That is correct.

Q. What do these service manuals relate to generally?

MR. McCONNELL: I object to that. They speak for themselves.

MR. KAYSER: Do they have to do with the conversion to the 625 line screen?

A. Not only 625, to the C.C.I.R. 625, in various different markets.

Q. Do they have anything to do with the conversion to 405 lines?

A. No.

Q. Then I believe you stated yesterday that you have no service manuals for conversion to the 405 line screen?

A. Not from Zenith, no.

134 Q. Do you have any that you prepared yourself?

A. For my internal purpose, yes.

Q. Could you produce those, please?

MR. McCONNELL: I object to that. The conversion manuals from Zenith are the only things material here.

MR. KAYSER: No. The order says conversion manuals having to do with Zenith sets.

MR. McCONNELL: It does? His own conversion manual?

MR. KAYSER: It is "conversion instructions or manuals for converting Zenith television sets for use in the United Kingdom". It does not say "received from either Zenith Radio Corporation", or even "Zenith Sales Corporation".

THE WITNESS: I hope I will get it back, because that is the only copy I have. (Produced).

MR. McCONNELL: You will get it back all right.

MR. KAYSER: You have handed me what appears to be a reproduced copy, consisting of five sheets, the first sheet being headed "Television Model K.3345 Chassis 16K23QS". Who prepared this document?

A. One of my engineers.

MR. KAYSER: Would you mark the document I have just referred to as Plaintiff's London Deposition Exhibit No. 40 for identification?

(Conversion instructions marked "Plaintiff's London Deposition Exhibit No. 40 for identification")

Q. Who was your employee who prepared these instructions?

A. I have three young engineers in our service department and it was a joint effort. I told them: "Look, I
135 want a television for my own use", so they did that, because at no time do we anticipate to have to convert any Zenith sets. When the time comes and we can import them, we shall be getting complete built proper Chicago sets and conversion will not come into it.

Q. Who were the three employees that you have just referred to?

A. The names you want?

Q. Yes.

A. Mr. Clovolou, Mr. Walker and a Mr. Leon.

Q. Are they still with you?

A. Yes, they are.

Q. When was the conversion that you refer to made?

A. A few months ago.

Q. Just a few months ago?

A. Yes.

Q. In 1965?

A. I believe so, yes, or 1964.

Q. Can you identify the time more closely than that?

MR. McCONNELL: I object to what happened after 1965. We have a damage period here which ends in May 1963.

MR. KAYSER: This was either 1964 or 1965; is that correct?

A. It was definitely.

Q. This is the only set you have—

A. For my own use, yes.

Q. The only set that United Mercantile has converted?

A. That is correct.

Q. Has Zenith ever sent you any kits to convert the U.S. set to 405 lines?

A. No, they have not.

136 Q. Has Zenith ever sent over to you a set converted to the 405 line transmission?

A. No.

Q. You had this set converted for use in your home, the one that is referred to in these instructions?

A. That is correct, yes.

Q. Did this set also receive 625 lines?

A. It does.

Q. These instructions describe the changes to be made both—

A. Yes, convertible.

Q. In other words, with these instructions, you would have a dual set which would take 405 and 625 lines?

A. That is correct.

Q. By "these instructions" I am referring to Plaintiff's London Deposition Exhibit 40 for identification. Your testimony is that a skilled workman using those instructions could take a U.S. set and produce a set which would receive both 405 and 625 lines?

A. That is correct, yes.

• • •

138 Q. Am I correct that the information which you say you had concerning the so-called Patent Pool came from people in Zenith Radio Corporation?

A. That is correct, yes.

Q. Anyone else?

A. I did not know about it.

• • •

155 MR. KAYSER: I am sorry; marked for identification, as Plaintiff's London Deposition Exhibit 38, page 329 from "Radio Retailing", and in there you are quoted as having said: "We shall keep a very close watch on the U.K. market, so that, as the situation warrants it, we can bring in more Zenith products. At the present moment we are waiting to see what the Government's decision will be regarding the third T.V. channel before we commit ourselves on importing T.V. receivers".

MR. McCONNELL: I object to reading that in evidence. You have not identified it as the statement of this witness. You have not identified it out of any conversation. You have got a hearsay statement which you are reading into the record. I move to strike it out.

MR. KAYSER: I will ask the witness if it is not the fact that the Government was in August 1959 considering a third channel for United Kingdom television.

MR. McCONNELL: I object to that. This man was not with the Government. He did not have anything to do with broadcasting. There is no showing that he did. He has no information on it.

A. There were rumours about it.

MR. KAYSER: Did these rumours have to do with the possibility of introducing a 625-line station?

A. I believe so, yes.

* * *

164 Q. Mr. Ramsay, you have handed me, first, one page headed "Sales Information Bulletin" and dated July 1959?

A. Yes.

MR. KAYSER: I would like this to be marked for identification as Plaintiff's London Depositions Exhibit No. 44.

(Sales Information Bulletin dated July 1959 marked "Plaintiff's London Depositions Ex. No. 44 for id.")

Q. You have handed me another price list consisting of three pages and dated July 1959. It has at the top "Ref. 5/7/59", which document I will ask the Reporter to mark as Plaintiff's London Depositions Exhibit No. 45 for identification.

(Three-page document with "Ref. 5/7/59" on it marked "Plaintiff's London Depositions Ex. No. 45 for id.")

Finally, you have handed me a third price list consisting of one page, which is marked "Sales Information Bulletin. Confidential. November 1960".

(Document marked "Plaintiff's London Depositions Ex. No. 46 for id.")

Do you have any more price lists covering the period from July, 1959 to May 22, 1963?

A. Yes, I have.

Q. Could you produce those, please?

MR. McCONNELL: Is there anything in this order about price lists? There is no order on Mr. Ramsay to produce price lists. I thought we were talking about correspondence. There is certainly nothing here about price lists.

MR. KAYSER: I think this certainly is within the scope of the subject matter.

MR. McCONNELL: Where is it in the order?

165 MR. KAYSER: It is within the scope of the subject matter of the oral examination, which has to do with the distribution of Zenith Radio Corporation products.

MR. McCONNELL: I object to Mr. Ramsay producing price lists here under any such order as this.

MR. KAYSER: Mr. Cook calls my attention to the fact that the order does call for "records showing the cost of such products", namely, Zenith radio sets and television sets, "shipping and importing charges, and the selling price for such products".

MR. McCONNELL: That is a sale, is it not.

MR. KAYSER: Selling price.

Q. Do you have any more price lists for Zenith Radio Corporation products?

A. Yes, I do.

Q. Would you produce them, please?

A. Here they are. Excuse me, Mr. Commissioner. When will I get back all these papers?

THE COMMISSIONER: I understand that copies will be made for the purpose of attaching them to the depositions and that the originals will then be returned.

THE WITNESS: Because we have to refer to them in our daily work.

MR. KAYSER: I observe that the beginning date of

this group you have just handed me is April 1960 and the final date is January 1963; is that correct?

A. That is correct.

MR. KAYSER: Possibly, if Mr. McConnell is agreeable, we can treat these documents as one exhibit and give each page a letter.

MR. McCONNELL: Fine.

166 MR. KAYSER: Then I ask that the price lists which Mr. Ramsay has just handed me be marked for identification as Plaintiff's London Depositions Ex. No. 47 and that each page be separately lettered.

MR. McCONNELL: Will you state for the record how many pages you have got? We had a little trouble with counting the other day.

MR. KAYSER: According to my count there are 27, including some smaller sheets and some sheets on which information is written in longhand.

(Twenty-eight price lists marked "Plaintiff's London Depositions Ex. No. 47 for id.", with the pages lettered "A" to "Z" and "AA" and "BB".)

* * *

170 MR. KAYSER: It will be five copies, then.

Q. You have previously produced today, Mr. Ramsay, two black covered volumes headed "Zenith Service Manuals" and I have checked them, and according to what I have seen the earliest date appears to be January 12, 1960 and the latest date appears to be May 14, 1965.

A. That is possible, yes.

Q. As I understand it, these Service Manuals and the contents were received from Zenith Radio Corporation?

A. They were received from Zenith Sales Corporation.

Q. But they had to do with the conversion of television sets of Zenith Radio Corporation?

A. Of Zenith televisions, yes.

Q. To the 625 line scan, I think they call it?

A. That is right, yes.

Q. Is the C.C.I.R. that is referred to the 625 line scan?

A. It is the designation of the Consultative Committee which decides on the systems, of which I think all Euro-
171 pean countries are members. From time to time they meet and they decide this.

Q. I understand that is 625 lines, the C.C.I.R. standard?

A. Yes, that is the C.C.I.R. standard.

Q. But there are some differences between the C.C.I.R. reception and the U.K. 625?

A. Very, very slight.

* * *

17 Q. Do you have any personal knowledge of the steps which would be necessary to convert a 525 line U.S. set to a 405 line set which would meet the British standards?

A. I personally?

Q. Yes.

177 A. No. I am not a technician.

(The witness continued searching through his files)

MR. McCONNELL: You do not have to fool with that now, Mr. Ramsay. We can do that when we get through.

MR. KAYSER: According to the material which Zenith has put in evidence in this case, it exported 21 television sets to the United Kingdom in the year 1961. Do you know whether those sets were delivered to you?

A. I presume so, yes.

* * *

183 MR. KAYSER: I hand the witness, but I understand Mr. McConnell will wish to see it first, a bound volume containing the May 19, 1962, issue of Electrical and Radio Trader, calling attention particularly to page 14, which is headed "Zenith Ready". In the meantime, I will

ask the reporter to mark a copy of that page as Plaintiff's London Deposition Exhibit No. 55 for identification.

(Copy of page 14 of May 19, 1962, issue of Electrical and Radio Trader marked "Plaintiff's London Deposition Exhibit No. 55 for identification")

MR. McCONNELL: Yes. (Volume passed to witness).

A. Yes.

MR. KAYSER: Will you note that reports or says: "A. R. Ramsay, Managing Director of United Mercantile Company, sole distributors in the U.K., told E.R.T. this week that colour sets as well as black and white will be imported immediately the market opens"?

A. Yes.

Q. And in the first paragraph it says: "Zenith, the leading American TV manufacturer, is all set to supply 625 184 line sets to Britain as soon as the outcome of the Pilkington Report is known".

A. Yes.

MR. McCONNELL: Wait a minute. I object to this procedure of reading into a record something which is not in evidence, and could not possibly get in evidence on any showing you have made, and trying in that way to include it in the record. I further object to cross-examining the witness on a document which he did not write, and there is no showing he has any connection with it. As I said before, a paper will not refuse ink. Anybody can write anything, and usually do in newspapers, and I think this is an entirely improper method of examination, and I object to it.

MR. KAYSER: Mr. Ramsay, did you give the information stated in that article to a representative of Electrical and Radio Trader?

A. I cannot recall. Quite possible.

• • •

185 MR. KAYSER: I show the witness the July 7, or particularly page 11 of the July 7, 1962, issue of Wireless and Electrical Trader, calling attention to the article: "Zenith 625 line TV sets are on the way".

MR. McCONNELL: Do you want to read that into the record, too?

(Volume handed to Mr. McConnell).

MR. KAYSER: I will ask the reporter to mark a copy of said page 11 as Plaintiff's London Deposition Exhibit No. 56 for identification.

(Copy of page 11 of July 7, 1962, issue of Electrical and Radio Trader marked "Plaintiff's London Deposition Exhibit No. 56 for identification")

186 MR. McCONNELL: O.K.

MR. KAYSER: I will ask Mr. Ramsay to read the article.

MR. McCONNELL: Read it to yourself; not into the record.

MR. KAYSER: And ask him to say whether or not he furnished the information therein contained to a representative of Wireless and Electrical Trader.

A. Sorry; what is the question?

Q. I asked whether or not you furnished the information contained in that article.

A. Possibly, yes.

Q. And made the statements contained therein?

A. Possibly, yes.

Q. Do you recall whether or not you did?

A. No, I cannot recall 1962 July statements in 1965.

Q. Is it still your testimony that you never gave any press releases on the subject of 625 line television?

A. As far as I recall; no, because there would not be any purpose. It would be a waste of time.

Q. I notice a reference in the first paragraph to: "An initial consignment of Zenith 625 line television receivers

is on its way to this country from America".

MR. McCONNELL: I object to reading in hearsay statements out of a newspaper.

MR. KAYSER: I will ask the witness whether or not—

MR. McCONNELL: I move to strike it all out.

MR. KAYSER: —whether or not the initial consignment referred to therein was ever received.

A. Possibly, because you mentioned yourself that 187 you have evidence of 21 sets being shipped, so there may have been some C.C.I.R. sets 625; I do not know.

Q. That 21 sets was in 1961, according to Zenith's evidence.

A. Yes; we may have received some in 1962. I still have some 625 sets.

Q. You do not recall whether or not you received any in 1962?

A. No. Possibly I did, yes.

MR. McCONNELL: I move to strike out what he possibly might have gotten. If he knows, all right. If he does not know, he should say so.

MR. KAYSER: I call to the witness's attention page 107 of the July 21, 1962, issue of Wireless and Electrical Trader, particularly the article headed "Zenith Development for Record Playing", and then the last paragraph of that article, which makes reference to Zenith 625 line receivers.

While Mr. McConnell is looking at that, I would like the reporter to mark a copy of that page as Plaintiff's London Deposition Exhibit No. 57 for identification.

(Copy of page 107 of July 21, 1962, issue of Electrical and Radio Trader marked "Plaintiff's London Deposition Exhibit No. 57 for identification")

MR. McCONNELL: O.K.

A. Yes.

MR. KAYSER: Did you give a representative or re-

porter of Wireless and Electrical Trader the information shown in the article headed "Zenith Development for Record Playing"?

A. Possibly I did, yes.

• • •

188 Q. Did you have on display at your Queen Street showrooms at the end of July 1962 a range of Zenith 625 line television receivers?

A. Yes, I did.

Q. Were those television receivers which would receive the 625 line transmission proposed by the Pilkington Report?

A. Yes, that is correct.

Q. I show to the witness page 201 of the August 4, 1962, issue of Wireless and Electrical Trader, calling attention to the article headed "Zenith record development shown in London this week", calling particular attention to the subheading and the material under "Zenith 625 line TV here". I assume Mr. McConnell will want to see it.

I ask the reporter to mark a copy of that page as Plaintiff's London Deposition Exhibit No. 58 for identification.

MR. McCONNELL: That is a very sound assumption you made there.

(Copy of page 201 of the August 4, 1962, issue of Wireless and Electrical Trader marked "Plaintiff's London Deposition Exhibit No. 58 for identification").

MR. McCONNELL: O.K.

A. Yes.

189 MR. KAYSER: Will you take a look at that?

A. Yes, I did.

Q. Will you state whether or not you did in fact have a demonstration at your showrooms previous to August 4, 1962, as referred to in the second paragraph of that article?

A. Could you repeat the question?

Q. What I first asked concerns the second paragraph, whether you in fact had the demonstration at your showrooms referred to there.

A. Yes.

Q. And did you in fact have seven models from the Zenith 1963 T.V. range in the showroom?

A. Yes.

Q. Are those sets equipped to receive 625-line transmission?

A. Yes.

Q. Were they equipped to receive 405-line transmission?

A. No.

Q. Did you put out a press release at that time concerning the possibility of selling 625-line screen television in Britain?

A. I do not know if we made a Press release.

MR. KAYSER: I would like to show the witness the back of page E of Plaintiff's London Deposition Exhibit No. 47 for identification, the front of which page appears to contain some price information, and the back of which looks like some mimeographed material; in other words, it looks as though the back of the sheet was used for price information.

MR. McCONNELL: Let me look at it before you examine the witness on it.

190 MR. KAYSER: Surely. (Exhibit handed to Mr. McConnell and then the witness).

A. Yes.

Q. Is the printing on the back of that a part of a Press release?

A. I do not know.

Q. At the time of this Press conference, or whatever it is you had in August 1962, were you advertising Zenith phonograph with micro-touch tone arm?

A. Probably, yes.

Q. You say you do not know whether or not—

A. It is difficult to identify a scrap of paper without any heading, any signature, any details. Anyway, it should not be in your papers, because I should have given you only price lists, and that is not a price list.

Q. On the front there are prices.

A. Therefore, the front is usable.

Q. I show you page G from the same Exhibit, and on the front this time, where it is headed "Price List of Zenith Stereophonic Equipment", there was a statement.

A. Yes.

Q. It says: "We regret for the time being our combined television-radiogram units cannot be used in the U.K. until a system of television transmission is changed to 625 lines".

A. Yes.

Q. Was that information put out to your customers?

A. Well, I could not tell them the truth.

Q. You told them what was in this last paragraph?

191 A. That is right. You have to find an excuse. You give a beautiful leaflet with wonderful combinations and everybody wants them. So, what can you tell them?

Q. I show you page M out of the same Exhibit.

A. The same thing.

Q. You have not seen it yet.

A. That was one of my standard excuses not to sell television.

Q. You mean your standard excuse was that you were waiting for 625-line screens?

A. As far as the public was concerned, yes.

* * *

192 Q. I show you another letter dated August 1st, 1962, from you to Mr. John A. Miguel, Jr., Vice President, Zenith Sales Corporation. This again, as all these previous letters, was out of Zenith book Exhibit 112.

MR. McCONNELL: All of which have been before the Court and they have been under his scrutiny and, after reading them all, he has found every issue against you in the law suit.

MR. KAYSER: As a matter of fact, Mr. McConnell, I believe these were put in evidence and no reference was made to them.

MR. McCONNELL: That is a thing you threw on the floor in your hearing in Chicago and made such an ass out of yourself.

A. Yes.

MR. KAYSER: Did you send the original of that letter?

A. Yes.

MR. McCONNELL: Will you let me read it before you go ahead with your examination?

MR. KAYSER: By reason of your remarks, I assumed you had nothing better to do.

A. Yes.

Q. Have you read it?

A. Yes.

Q. I take it this reports on the Press conference mentioned in the August 4 article in the "Electrical Trader"?

A. It may do, yes.

Q. Do you know of any other Press meeting that you had at that time?

A. I think this letter relates to both, Press and dealers, as mentioned in the letter.

193

Q. Now, you said in your last paragraph on page 1: "This 625 business is a very great thing in England and I think we have a fair chance and as far as colour is concerned we have a very good chance".

A. Yes.

Q. Were you saying this to Mr. Miguel because you did not want him to know about the problems of this pool?

A. No. At that time, when the introduction of 625 was

anticipated in England, it was a very big thing. Every British manufacturer was getting ready. We expected sales of millions of sets in the country; and if at that time we were able to start selling here, it would have been a big thing. What happened at a later date you may find from records and from the Press, but the 625-line introduction in England was a topic all over the Press. It was a very great thing.

Q. I gather that in August 1962 you also thought that the 625-line transmission would be a big thing?

A. I thought so, yes.

Q. Turning to the second page, you say: "Going back to the subject of T.V. sets, it is quite clear now that if we want to do a real business of it we must have a reasonably priced 19-inch".

A. Yes.

Q. "As you know, we took a sample of the K2108 and I would like to have your opinion whether it would be advisable to have a lower model to get the price down without
194 making the conversion too difficult". Why did you think that you needed a lower priced 19-inch T.V.?

A. Because I am probably too ambitious. When we come with televisions into this market, I would not satisfy myself with just a few per cent of the market. I would try to get more.

Q. You said you needed a reasonably priced 19-inch. Did you have any prices at that time for a 19-inch set?

A. Just indications of prices, yes.

Q. From Zenith Sales Corporation?

A. Yes, from Zenith Sales Corporation.

Q. What were the indicated prices which they suggested?

A. I do not remember what they were. They were changing every six months, because different lines were. There was a question of quantities involved. We were getting special quantity prices if we were purchasing.

Q. Do you have any records which show what the price

was that was suggested that you should either pay or charge?

MR. McCONNELL: He did not even have a distributorship for T.V. What are we talking about? We have already got that in evidence.

MR. KAYSER: Do you have any records which show what prices you would be charged for 625-line television?

A. The only prices I had were for the few samples they sent to me, on which I was basing my calculations, but I did not have the proper quantity prices.

* * *

204 Q. Do you know of any manufacturer who is selling sets in the United Kingdom with 625 line only reception?

A. I do not know.

Q. Do you know whether the B.B.C.2, the third band programme, is broadcast all over England?

A. I believe the coverage is in certain parts of England and expanding until it will cover the whole of Britain.

(A short recess was taken.)

Mr. KAYSER: Mr. Ramsay, according to the evidence which Zenith Radio put in in this case there were exported to the United Kingdom during 1962 28 television sets and during 1963 to May 31 15 television sets.

A. Yes.

Q. Did you buy those sets?

A. Yes, I did.

Q. What happened to them?

A. In one second I will tell you. What was the number in 1962?

Q. Twenty-eight in 1962.

A. (Consults records) Twenty-eight—yes, that is correct. I am sorry—29, I thought. There may be an overlapping period. Some are dated January. There may be an

overlap between the shipment from Chicago and the arrival in London. I have the records of what happened to them.

Q. Were those sets built to receive 625 line transmission when you received them, as delivered to you?

A. Some did. Some did not.

205 Q. How many were equipped when you received them to receive 625 line transmission?

A. I think four.

Mr. McCONNELL: I object to this. They obviously were not sold in the United Kingdom.

Mr. KAYSER: The witness has not testified to what happened to them.

Mr. McCONNELL: He has told you already that he never sold one in the United Kingdom.

THE WITNESS: In fact, there were more in 1962-63. As I said, there is an overlapping period. For instance, there are January deliveries. If you have serial numbers, I can identify each serial number.

Mr. KAYSER: All I know is that Zenith Radio Corporation has said that there were 28 in 1962.

A. Shipped by them in 1962, because I can see that some arrived in January 1963.

Q. How many arrived in 1962?

A. Thirty-five.

Q. How many of those sets were when they were delivered to you equipped to receive the British 625 line transmission?

A. Eleven.

Mr. McCONNELL: There were not any until 1964, according to the document you just produced.

Mr. KAYSER: If you and I want to discuss this thing, Mr. McConnell, there were test patterns, as I think is pretty clear on the record—the results of reports and recommendations.

Mr. McCONNELL: We are just wasting time with stuff

which had nothing to do with the market.

206 Mr. KAYSER: What about the remaining 24 sets?

What number of lines per screen were they equipped to receive?

A. Twenty-three were the American system. One was the European system.

Q. What happened to the 23 sets equipped with the 525 line transmission?

A. They went mainly to Argentina. Some went to Qatar in the Persian Gulf.

Q. Were these sets sold to you by Zenith Sales Corporation?

A. Yes, they were.

Q. What happened to the one European set?

A. The European set was sold.

Q. What happened to the eleven sets equipped to receive 625 lines?

A. I have them in stock now.

Q. Were they sold to you by Zenith Sales Corporation?

A. Yes.

Q. Were those black and white sets, or were any of them designed for colour reception?

A. Black and white.

Q. Was there more than one model?

A. Yes, there was more than one model?

Q. How many models?

(The witness consults records)

Q. You have before you there some file cards; is that correct?

A. Yes. There were seven models.

• • •

208 MR. KAYSER: Are any of those sets equipped to receive 405 line transmission?

A. No.

• • •

212 Q. Mr. Ramsay, how many employees did United Mercantile have when it started business in 1959?

A. Two.

Q. Who were they?

A. My Secretary and a driver.

Q. And yourself as Managing Director?

A. That is correct, yes.

213 Q. And by August, 1959, how many employees did you have?

A. About six or eight, I believe.

Q. How many sales personnel did you have by the end of 1959?

A. The end of 1959 we had, I think, about three—two or three.

Q. And Mr. Spink was one of them?

A. Yes.

Q. Who were the other two?

A. There was a man called Martin.

Q. Were they salesmen?

A. Yes.

Q. How many sales personnel did you have at the end of 1960?

A. About three, or something like that.

Q. How many at the end of 1961?

A. About the same.

Q. 1962?

A. Same.

Q. May 22, 1963?

A. About the same.

Q. You had three salesmen?

A. Two or three. It was varying; sometimes we had to change them, they were not right or something.

Q. What was your procedure and method for selling radios? Did these men go out soliciting business?

A. No, not now they don't, no.

214 Q. I asked you how you distributed radios during the period from 1959 to May 22, 1963.

A. Occasional advertising. We have a department in Harrods selling Zenith's.

Q. What did those two or three salesmen do that you have referred to?

A. Two were in Harrods selling, one in the showroom demonstrating.

Q. You have no salesmen that travel through the country?

A. No, we do not.

Q. How do you acquaint dealers with the availability of Zenith radios?

A. In 1959 we told them that Zenith is here. There is not a single dealer in England who does not know what Zenith is.

Q. What have you done since that time to acquaint dealers?

A. Occasional advertising in trade Press.

Q. Any other way?

A. One or two meetings in the showroom.

Q. In what publications in the Trade Press do you advertise?

A. There are three or four, some which you yesterday mentioned, I think Electrical Wireless Trading, or Electrical Radio Trading or something like that.

Q. Radio Retailing?

A. I think so.

Q. Can you name any others that you advertise in?

A. There are about, as I said, four or five.

Q. Who is in charge of placing that advertising?

A. I do now.

215 Q. Have you since 1959?

A. No. For a few months we had a firm of advertising agents.

Q. And you have placed the advertising since that time?

A. That is correct, yes; but some of it is placed from Chicago, but not in the Trade Press, in the general Press.

Q. What is the circulation of these trade publications?

A. I do not know exactly.

Q. You have described now all the means you have used to acquaint retail dealers with the Zenith products?

A. Yes.

Q. During the period from June, 1959, to May 22, 1963, has United Mercantile had any office or place of business other than its original location and the present location on Queen Street?

A. Yes, we did take additional premises for storage. Was it in 1963?—yes, I think it was in 1963.

Q. These were storage premises?

A. That is right.

Q. They were not offices?

A. No.

Q. Or for display?

A. No.

Q. You have displayed sets only at your offices?

A. At our showroom, next to the offices.

Q. What is the maximum number of employees you have had during the period from June, 1959, to May 22, 1963?

A. I think about fifteen.

Q. And they have all been at your offices except for 216 the two salesmen at Harrods?

A. Offices and Service Department, yes.

Q. How many men do you have in your Service Department?

A. Three

Q. The rest of them being office personnel?

A. Office and showroom—Sorry, I made a mistake. There was one in 1963 or 1964 but that was mainly for hearing

aids. I do not know whether that interests you. In Harrogate that was.

• • •

218 Q. Have you found any particular type of Zenith radio which has been more popular than others?

A. Yes.

Q. What type is that?

A. It is the most expensive radio in their range.

Q. Is there a designation for it?

A. Well, it is known under the name of the Trans-Oceanic. The actual numbers differ as modifications come in.

Q. Has the price of that varied materially over the period from August, 1959, to May, 1963?

A. Not materially. There were fluctuations of a few pounds due to changes in purchase tax rates.

Q. That sells in the neighborhood of £170 including tax?

A. Today £165. 7s. 2d including tax.

Q. That is to the retail buyer, to the person who buys it to take it home to use it?

A. That is right.

Q. What proportion of your sales during the period from June, 1959, to May 22, 1963, have been in the Trans-Oceanic?

A. Quite a big proportion.

219 Q. As much as a half?

A. No, I would not say that.

Q. A third?

A. At that time I cannot say. Whatever I would say may be wrong.

Q. But that is the biggest seller?

A. Well, it always appears to be the biggest seller because it is the most expensive unit.

Q. Is it the set of which you sell more numerically than any other set?

A. More what?

Q. You sell more Trans-Oceanics than you do any other set?

A. Yes, we do—in radio sets.

• • •

233 Q. Do you have any data on shipping and importing charges?

A. No. There is nothing to it, because there is a duty, a flat duty, ad valorem.

Q. How much is that duty?

A. 20 per cent it was at this time, and then there are shipping charges of 36 dollars per ocean ton, which equals 40 cubic feet. So it is quite simple.

Q. You also have some other charges—bonded warehouse?

A. Insurance and so on, which, taken in bulk, is about 2 per cent—clearance, insurance. You cannot individ-
234 ually calculate it to a penny each item.

Q. Your purchases were f.o.b. Chicago?

A. Our purchases are f.o.b. Chicago, yes.

Q. And you paid all cost thereafter?

A. That is correct, yes.

Q. I believe you indicated before that you would produce the invoices for radio sets for the period June 1959 to May 22, 1963.

A. Do you want all of them? They repeat themselves most of the time, and it is a lot of files.

Are they here?

A. Yes.

Q. We would like to see them, if we may.

A. I would have to extract them. That is why I made my objection.

Q. Could somebody else do that? Rather than do it now,

could it not be done after we are through to-day, whenever we finish to-day? It has been suggested either by your Solicitor or the other side of the table that this could be done by our people looking at these documents in the presence of representatives from the other side.

A. If it is agreeable to the two parties, I have no objections.

Q. And then you won't have to do it at all.

A. Good.

Q. Shall we go on till recess and then decide the exact mechanics for this? I assume you pay the duty on the imports. Is that right?

A. Yes; we pay duty on goods which remain in the United Kingdom, naturally.

Q. And if the goods are placed in a warehouse, you 235 pay the warehousing charges?

A. Yes, that is correct.

Q. Just for the purpose of reference in the next few questions, I will hand you two sheets. One is a Sales Information Bulletin which you produced yesterday. It is Plaintiff's London Deposition Exhibit 44 for identification; and also 45.

(Exhibits handed to the witness).

A. Yes.

Q. I notice that the first mention of these at the right there is a column "Retail Price", and then the second column "Suggested Retail Price".

A. That was my mistake. When I came back from the States and I gave this to be printed, they based themselves on the same system like the United States. They put in "Suggested Retail Price". Then I realised that that does not apply to England so I abandoned this "Suggested".

Q. Is the retail price something that the retailer was obligated to charge?

A. In England, yes.

Q. This was true during the 1962/63 period?

A. Still now, yes.

Q. The item next to the left is "P/Tax". Is that the Purchase Tax?

A. Yes, Purchase Tax.

Q. Then the next to the left column is a column "List Price".

A. Yes.

Q. That is the retail price before addition of the Purchase Tax?

A. That is correct, yes. It is not on this list. It is 236 on the one you have. We changed a little. It is the first seven days of creation. So you do all kinds of things.

Q. The heading "Dealer's Price"; is that the price that the dealer would pay to United Mercantile?

A. To us, yes, that is right.

Q. The normal practice is, is it not, to give the dealer a standard discount off of the retail price?

A. And that is why we introduced this type of price list, because you will see that the dealer's price is a price after discount of the list price.

Q. What is the usual discount which retailers get?

A. 33⅓ off.

Q. The dealer's price is 33⅓ per cent normally off list price?

A. Before Purchase Tax, yes.

Q. Were there any cases where the discount to the retailer was greater than the 33⅓ per cent?

A. No, I cannot recall cases like that. That is a standard discount in the trade.

Q. Did you sometimes give a smaller discount?

A. Not smaller, no.

Q. What gross margin of profit did you realise over your costs?

A. It is an embarrassing thing, because Zenith probably will kill me. It varies between 40 and 50 per cent.

Q. In other words, you marked up the set 40 to 50 per cent over its landed cost?

A. Over landed cost, yes. In some cases a few per cent less, and in some cases a few per cent more.

• • •

242 Q. I hand you the original of a letter from Mr. Miguel addressed to you dated July 27, 1959, and it has as a reference "AR/mg No. 3062—Art Work". Will you take a look at the last paragraph of that letter?

A. Yes, I have seen that paragraph.

MR. KAYSER: I will wait until Mr. McConnell has finished reading it.

MR. McCONNELL: All right.

MR. KAYSER: What is the "market report" referred to in the last paragraph of that letter?

A. Agency programme.

Q. You say, "Your agency's program, from a quick look, appears very ambitious, particularly in the face of a limited market, which the report indicates can be achieved at its very best, because of the unfavourable price factor."

A. Yes.

MR. McCONNELL: All right. I move to strike it all out.

THE WITNESS: That speaks about something which passed between the advertising agency and Zenith, so I cannot comment on it or know about it, or I cannot remember.

MR. KAYSER: Was that the report made by the Economist Intelligence Unit, do you know?

A. No. I never heard of it.

243 Q. You believe this is a report made by an advertising agency?

A. Yes, it was by an advertising agency.

MR. McCONNELL: Made to Zenith?

A. Yes, made to Zenith. In fact, this letter all deals with art work, advertising, and so on. It is entitled "Art Work".

MR. KAYSER: What is "the unfavourable price factor" referred to at the end of that letter?

MR. McCONNELL: I object to your cross-examining this man on Mr. Miguel's letter. I do not know how this witness would know what was in Mr. Miguel's mind.

THE WITNESS: I do not know.

MR. KAYSER: You do not know what he was referring to?

A. No.

* * *

246 Q. Mr. Ramsay, I hand you a carbon copy of a letter which you apparently wrote on 1st September, 1959, to Mr. Miguel which has some financial data in it and on the second page you say that in order to arrive at a reasonable profit you should work on a multiplier of 3.75, and so on. What does that mean? What is that multiplier?

A. It is a mathematical figure at which you arrive when you take your costs. You add your shipping charges and landing charges, you convert dollars into pounds, and you come to the final multiplier. It is to make the calculation easy. It is so that every item does not have to be calculated on its own.

Q. You multiply something by 3.75; is that it?

A. That is right. If something costs 100 dollars in a factory and the duty is 20 dollars, it will be 120 dollars. So you will multiply by 1.2.

Q. In other words, you would multiply by 3.75 your cost f.o.b. Chicago, plus duty?

A. No. I think 3.75 is the arriving price — the retail price, the multiplier, including the tax and everything.

Q. In other words, the retailer's price if you have a multiplier of 3.75 would be 3.75 times the f.o.b. Chicago cost, plus duty?

A. That is right.

MR. McCONNELL: Plus duty?

A. No, not plus duty. It is the complete retail price, the final retail price.

247 MR. KAYSER: The 3.75 would be applied to the total of the f.o.b. Chicago price, plus duty?

MR. McCONNELL: He did not testify to that.

THE WITNESS: We are getting confused. The f.o.b. price, if multiplied by the multiplier, will arrive at the final retail price including everything — duty, tax, retailer's profit, everything else.

MR. KAYSER: If your f.o.b. price was 100 dollars, the retailer's price after applying the multiplier would be 375 dollars?

A. That is correct.

• • •

252 MR. KAYSER: Mr. Ramsay, I handed you some documents before the recess and I would like to identify them on the record by date.

THE WITNESS: One second, because I want to comment on them. There is a difference between them. I think you will ask me a question on which it will be relevant to point this out.

Q. Let us first identify them on the record. From the "Wireless and Electrical Trader", November 4, 1961, page 375; April 14, 1962, page 76; January 26, 1963, page 159; November 3, 1962, page 305; November 17, 1962, page 422; April 30, 1960, page 382; September 3, 1960, pages 724 and 725; November 12, 1960, page 527; May 6, 1961, page 362; October 15, 1960, page 207; August 22, 1959, page 148; August 13, 1960, page 379; March 4, 1961, page 535; and April 29, 1961, page 271. Then, from "Electrical and Radio Trading", the pages I showed you were from the issue of April 29, 1961, page 51; May 13, 1961, page 31; February 11, 1961, page 36; October 22, 1960, page 91; November 19,

1960, page 48A; September 10, 1960, pages 59 and 61; May 7, 1960, page 46; and, finally, April 21, 1962, page 35. I gave you those before the recess and asked you to examine them and give the answers to certain questions: first, whether you furnished the information shown on those pages concerning the Zenith radio products.

A. It appears that we did, yes.

Q. I take it that the information shown is correct.

A. Yes.

Q. Did you have for sale the radio sets shown on those pages?

A. Yes.

253 Q. You gave the information to those publications for the purpose of advising dealers of the availability of those sets.

A. That is correct, yes.

Q. Incidentally, so that the record will be clear for the future, is it true that the English pound during this four-year period has been around 2 dollars and 80 cents?

A. Yes.

Q. How many shillings are there to the pound?

A. Twenty shillings in the pound.

Q. How many pence in a shilling?

A. Twelve pence in a shilling.

Q. The small letter d indicates pence, does it?

A. One penny.

Q. A guinea is how many shillings?

A. Twenty-one shillings.

Q. Mr. Ramsay, I show you a copy of page 24 from "Electrical and Radio Trading", September 23, 1961, which is not a page showing a set, and call your attention to an article entitled, "British T.V., radio sets too cheap, says Zenith man".

A. Yes.

Q. Did you give the interview indicated there?

A. Quite possibly, yes.

Q. Why did you feel that the prices and profit margins on radio and television in the United Kingdom were too low?

A. It is sufficient to look at balance sheets of all the manufacturing companies in England.

• • •

301 Q. Did they ever send over a set designed to receive the 405 line transmission?

• • •

Q. Did they ever send over such a set?

A. No.

Q. Did they ever send over a set that would transmit both the 405 line and the 625 line transmission?

302 A. No.

Q. They never send over such a set?

A. No.

Q. But they did send over a number of sets which would receive the 625 line transmission of U.K. standard?

A. Well, U.K. and European standard; the C.C.I.R. standard.

Q. They sent sets which would take the British standard?

A. The C.C.I.R. system.

Q. That is usable in Britain?

A. Could be usable.

• • •

DEPOSITION OF WILLIAM GUNDRY MILLS

Depositions of witnesses, produced, sworn and examined at the American Embassy, Grosvenor Square, London, England, commencing on the 23rd day of June in the year one thousand nine hundred and sixty-five, under and by virtue of an Order of the United States District Court for the Northern District of Illinois, Eastern Division, and pursuant to a Notice issued on behalf of Zenith Radio Corporation.

• • •

London, England,
June 23, 1965.
10.45 a.m.

THE COMMISSIONER: Since it is under Notice, I think we had better have the reporters sworn in again.

(The reporters were then sworn)

WILLIAM GUNDRY MILLS,
being duly and publicly sworn,
and examined on the part of the
Defendant-Counterclaimant, doth
depose and say as follows:

* * *

DIRECT EXAMINATION BY MR. McCONNELL

Q. Subsequent to the date of that report, you did make, if I understood your testimony, surveys of durable consumer goods?

A. Yes. They have been made for seven or eight years.

Q. Tell us what the method was used in making those surveys.

A. The object of these is a very different one. It has not got a specific object, which, of course, every ad hoc report normally has. The intention was to do three things fundamentally: First of all, to establish the ownership pattern; secondly, to establish the intentions to purchase over the forthcoming six months; and, thirdly, to relate those two sets of information to the economic conditions of the country at the time and our forecast of any likely change that might take place in them. In addition, there was certain supplementary information dealing with questions of raw material availability, price trends, labour availability, and so on. It was intended to be as complete a picture as possible of the situation at one moment of time, forecast six months in advance, for the radio and television manufacturer, and, of course, for other manufacturers of consumer durables.

Q. In connection with that survey, did you use personal interviews with consumers?

A. In this "Consumer Durable" survey we worked in conjunction with the British Market Research Bureau, who conducted on our behalf a random sample of 3,000 twice yearly.

Q. Were those samples set up in some scientific way to be representative?

A. They were considered by British Market Research Bureau and by our own statistical people to be excellent random samples, to give a very fair picture of the situation at the time the interview took place.

Q. Did you check the results of those interviews against the actual results in subsequent periods to determine whether you were correct or whether you were way out, what we say in left field somewhere?

A. On the whole, way out.

Q. You were way out?

A. On the whole, yes.

Q. What was the result? Was it accurate or not?

17 A. We think that the situation, as at the moment of time the interviews were taken, gave an accurate picture of ownership. There is no question about the ownership figures being accurate. They were very accurate indeed. But what did not turn out to be accurate was the forecast of purchases over the forthcoming six months. We found that it was impossible to allow for the effects of continually changing Government regulations on people's intentions to purchase. We would make an estimate, making certain assumptions about the economic situation of the country, and availability of spending power, and so on, and then in the middle of the period for which we were forecasting the hire purchase regulations would be changed or there would be a credit squeeze. At least, that is what we think.

Q. The chief Government regulation was the hire purchase, was it not?

A. Yes, hire purchase.

Q. What was the effect of hire purchase?

A. If you got a higher deposit and a lower period of time over which to pay, you normally had an almost immediate effect in reducing demand, particularly the more costly products.

Q. That was intended to decrease the purchase of consumer goods in the home market, was it?

A. That was the intention.

Q. You found, I take it, from what you told us here, that when they intended to squeeze the home market, they squeezed it?

A. It certainly appeared to be quite successful on a number of occasions.

Q. What period of time did these surveys cover which you made?

18 A. They were produced every six months.

Q. Generally from what period to what period? Was it at a date?

A. The object was to have the things produced in February/March and July/August, at the turning of the month, based on interviews and writing up in the preceding three months.

• • •

22 MR. McCONNELL: I ask the Court reporter to mark these documents 9 thru 13, both inclusive.

(Documents marked Zenith Deposition Exhibits Nos. 9 thru 13 for identification respectively)

Q. I show you documents which are marked for identification Zenith Deposition 9 to 13 and ask you whether you can identify these documents as being prepared by your company during or about the time of the dates that they bear.

A. Yes, I can.

Q. And were they?

A. They were.

Q. I take it they were prepared in the way you testified to here a while back when you were talking about durable goods, consumer goods?

23 A. That is correct.

• • •

CROSS-EXAMINATION BY MR. KAYSER

• • • •

53 MR. KAYSER: I dare say Counsel can fix it up later. In this hypothetical question with which your

---

[By Mr. McConnell]

Q. On the basis of your background and experience and education with your company, and your general knowledge of the industry in the United Kingdom, and assuming for the purposes of my question that the Zenith Radio Corporation sold at least 10 per cent of the entire United States television market during the period of May 31st, 1959, to

24 July 1st, 1963, and was first in television sales in that market during that period, and assuming that because of the superior quality controls and master craftsmanship and general all-round excellence of its sets that the Zenith Radio Corporation was able to sell its sets during that period in the American market at approximately 10 per cent above the average market price, and assuming that the competition in the United States both as to quality, the reputation of the companies involved and the price, is comparable to that in the United Kingdom, and assuming further that the Zenith Radio Corporation was able to obtain a license from the British Patent Pool to sell imported sets at the same royalty rates charged local manufacturers as licensees of the Pool, and assuming that therefore the British Patent Pool did nothing to impede the sale or the promotion of sale of the Zenith Radio Corporation in the United Kingdom, and assuming that the earliest date that an importer in the United Kingdom could legally order Zenith radio sets or television sets to be imported into the

direct examination was concluded this morning, at what prices were you assuming the Zenith sets would be sold in Great Britain?

MR. McCONNELL: I do not think there was any assumption in that hypothetical question about prices. I object to the question.

A. Competitive prices.

MR. KAYSER: You mean competitive prices?

A. Yes.

Q. What would your answer have been if the Zenith price had been 10 per cent higher than competitive prices?

A. Competition does not depend entirely on price.

Q. I say what would your answer have been if Zenith's price had been 10 per cent higher than competitive prices?

A. I do not think my answer would have been any different.

Q. They would have sold the same number of sets even if prices were 10 per cent higher?

A. That is not relevant to that kind of marketing operation at all, not 10 per cent.

United Kingdom after June 8th, 1959, and assuming that after June 8th, 1959, there was no restriction by import regulation on the import of Zenith television sets in the United Kingdom, and assuming that the Zenith radio and television sets were manufactured with the same number of lines in the tubes and were in all respects able to receive both the British Broadcasting and the I.T.V. programmes in the United Kingdom, and assuming further that the Zenith Radio Corporation was able to set up a system of distribution in the United Kingdom comparable to that of the Pye organisation in this country, have you an opinion as to the overall average of television sales that the Zenith Radio Corporation would have obtained under the conditions set forth in my hypothetical question in the four year period from May 31st, 1959, to July 1st, 1963, expressed in terms of a percentage of the entire United Kingdom television market?

Q. Why is not price relevant?

A. Because television sets are sold normally on hire purchase terms, and a difference in price of 10 per cent makes no material difference to the hire purchase terms.

Q. What if the price had been 20 per cent higher?

A. It might have had some effect.

Q. How much?

A. Very little.

Q. How much? You have been giving percentages this morning. I would like to know how much difference a 20 per cent increase would have made in the percentage.

MR. McCONNELL: 20 per cent of what?

MR. KAYSER: He has testified that, when he gave his answer to your hypothetical question, he was assuming that the Zenith price in Britain would have been competitive to competitors' prices.

A. I did not say that. I said "competitive".

Q. Competitive to what, then?

A. Competitive in a general sense; the value provided would have been competitive; that is, the quality of the reproduction of the set, its service, and so on, would have been comparable in relation to its cost to other sets whose cost might have been different. It is not my experience that price differentials of that nature affect the success or failure of the marketing of a particular thing.

Q. It does not affect the proportion of the market that the manufacturer can obtain?

A. Not materially.

Q. Does it to any extent?

A. To such a small extent that I could not put a figure on it.

Q. If Zenith's price were 10 per cent higher than the competitive prices, how much would that have affected the Zenith's market share?

A. 10 per cent would not be material.

Q. You mean not at all?

A. Not at all.

Q. It would not have affected the volume in any way?

A. No.

Q. What about 20 per cent higher?

A. 20 per cent might have had a small effect, but I would say very small.

Q. How much?

A. I could not tell you; too small to estimate.

Q. What if Zenith's price in your assumption had been 30 per cent higher than competitive prices?

A. If you want to get to 50 per cent, that would, of course, make a difference.

Q. What about 30 per cent?

A. 30 per cent would begin to make a difference.

Q. How much?

56 A. The amount of difference it would make would depend on a number of other things. When you are marketing a consumer durable, you cannot judge on price only. The success or failure of a sales operation does not depend entirely on price. A set which was sold for 30 per cent more than the nearest comparable set without any other advantages would, of course, not obtain a large proportion of the market; but that is not the assumption on which we are talking. If the set is competitive in the full sense of the term, and the vast majority of the sales are either on hire or on hire purchase, the effect will not be seriously material. There are all sorts of other elements which have got to be brought into it before you can answer a question of that kind accurately.

Q. Take the assumption you took this morning, when you so glibly gave a figure, and just change the price to 30 per cent above the competitors' price and answer the question.

MR. McCONNELL: I object to the question. The characterising of the witness's testimony as "glib" or otherwise is not a question. I object to it.

MR. KAYSER: All right. I will rephrase the question.

MR. McCONNELL: You do not have to insult the witness, or try to insult him. You just ask him a question. You will get co-operation from him.

MR. KAYSER: You answered a question this morning based on certain assumptions which Mr. McConneli put to you.

A. Yes.

Q. You have told me that you assumed a competitive price in talking about some sort of an average of 4 to 57 - 6 and maybe something about 8 per cent of the market.

I am saying take exactly that same question and assume that Zenith's price would have been 30 per cent higher than that of a competitive manufacturer and tell me what percentage of the market you estimate Zenith would have gotten during this four-year period that Mr. McConnell referred to.

A. If the set were—

Q. The same conditions, mind you, except for this difference in price.

A. We are talking now about what—a 17 inch or 21 inch set?

Q. Why didn't you ask those questions of Mr. McConnell when you answered his question this morning?

MR. McCONNELL: I object to that kind of a question. That is not cross-examination.

MR. KAYSER: Just take whatever conditions you thought Mr. McConnell had in mind when he asked you.

A. Mr. McConnell clearly defined the assumptions on which I was to give my answer. With all due respect, Mr. Kayser, I do not think you have.

Q. Do you recall what those assumptions were?

A. Most certainly.

Q. Then having recollected them, just assume the Zenith price was 30 per cent higher. What share of the market would Zenith have gotten during those four years, in your opinion?

A. Much the same, I would say.

MR. McCONNELL: 30 per cent higher than what?

MR. KAYSER: 30 per cent higher than the price of competitive manufacturers.

58 A. This is a question which is almost impossible to answer. You notice I am quite genuinely unwilling to answer this question, because I am on oath in this Court, and opinions which I give are ones which are prepared to the best of my knowledge and ability. I feel if you take a figure flat out, you can say the 21 inch is increased by 30 per cent, or 12 inch or 14 inch or 17 inch. What do you mean? I cannot answer your question. If you will define it to me clearly, I will attempt to answer it, but I really do not think you have so far.

Q. Do you recall the assumptions which Mr. McConnell put to you when you testified this morning?

A. Repeat them to me, Mr. Kayser.

Q. I am asking you: Do you recall them?

A. To the best of my knowledge, yes.

Q. All right. Then just add the feature that the price of the Zenith set charged by Zenith would be 30 per cent higher.

A. Higher than what?

Q. Than charged by competitive manufacturers.

A. 30 per cent higher, like for like, throughout the whole range of products. Is that what you mean?

Q. Yes.

A. That would necessarily have some effect on the total market. It must do.

Q. How much?

A. Assuming that the quality was as good as I have always understood it to be, I would have said the penetration might take—I think I would rather put it this way, in time rather than percentage. We were talking pre-
59 viously over a period of four years, were we not?

Q. That is right.

A. Let us say to obtain an equivalent penetration would take six years.

Q. But what would the penetration be during the four-year period?

A. I said before over the four-year period the likely penetration, in my opinion, which I may say is a very cautious one indeed—if I had not been on oath, I would have put a higher figure, if I had been asked for plain advice—would be between 4 and 6 per cent on the average over the four years. If you are 30 per cent higher, your 4 to 6 per cent would take six years to obtain.

Q. I asked what would be the penetration in the four-year period you testified to this morning.

A. You work out the average, Mr. Kayser.

Q. No; you work out the average.

A. I do not work out averages, I am afraid.

Q. You testified this morning, under Mr. McConnell's assumption, that the penetration during the four years would be an average of 4 to 6 per cent. I am asking you, in the same four-year period, what would the penetration be if the conditions were the same, except the price was 30 per cent higher.

A. I say it would probably take six years.

Q. I have asked what the penetration would be in four years; not how long it would take to get the same penetration. What would be the penetration in the four years?

A. I have given you my answer.

Q. You have not given me an answer.

A. I have given you my answer.

Q. You have said it would take six years, and I have asked you what penetration you would get in four years given a 30 per cent higher price charged by Zenith than charged by competitive manufacturers.

A. I say it would take six years to get the equivalent penetration.

Q. I have asked you what penetration.

A. You won't get the answer however much you ask.

Q. Why not?

A. Because this is what I consider to be the correct answer.

Q. I am asking the questions, and I am entitled on cross-examination to get an answer to the question that I ask.

A. You may be entitled, but you won't get the answer.

Q. You refuse?

A. I have given you the figures, on which any person can work them out. You merely multiply the figures by 4 over 6 and get the answer.

THE COMMISSIONER: Mr. Mills, you have not answered his question. I must call your attention to the fact. I think, on the whole, you have been treated with courtesy, and I would like to ask you to return courtesy. Obviously there is a question that was put to you. You have not answered it. May I ask you to answer it on the basis of the four-year period?

MR. McCONNELL: I object to the question. It contains assumptions which are way outside the hypothetical question that was asked him. There was nothing about having a 30 per cent higher price in the British market. You have not given the proper comparisons. I do not think it is a question anybody can answer, and I think the witness is perfectly within his rights to refuse to answer a question which is unintelligible.

THE COMMISSIONER: I think the witness should analyse the question as asked him and make his answer as supposedly an expert or one who developed those figures.

A. I am not an expert. I have never pretended to be an expert on television equipment; just on market research.

Q. It does seem to me that is a valid question to put to someone who has been engaged on market research. It is the extent of penetration of the market, as I understand it.

Mr. Reporter, would you read the question again for the witness to reconsider and give his answer as best he knows how?

(The Reporter read: "Then having recollected them, just assume the Zenith price was 30 per cent higher. What share of the market would Zenith have gotten during those four years, in your opinion?")

Q. Your opinion is asked.

A. Yes. I said, and I repeat it, that the penetration would have taken longer—that is all—because we are dealing with different things. You are bringing in all sorts of extraneous circumstances. I am not quite sure it is fully appreciated. We are dealing with, are we not, imports into the United Kingdom? According to the figures, the cost of living in the United States and the cost of production have not altered very considerably, particularly in the period concerned. However, in the United Kingdom the figures have altered considerably. So we are bringing in all sorts of imponderables. That makes it so difficult to answer Mr. Kayser's question. However, I would have said over the period of six years to which I am referring the price differential would have been lost. That is why I say it would take six years rather than four with a 30 per cent difference. If you wish the figure to be worked out, I believe the figures are 2⅔ to 4 instead of 4 to 6; but I have no doubt you can work that out as well as I can do.

MR. KAYSER: In other words, you are saying the other conditions as assumptions, as Mr. McConnell has assumed them, if the price charged by Zenith were 30 per cent higher

than the price charged by competitive manufacturers, during this four-year period from May 1959 to May 1963 the market penetration would have been from 2⅔ to 4 per cent; is that right?

A. I would say so.

Q. Let us assume this price difference is 50 per cent. What would the market penetration have been?

A. When you get to 50 per cent, the answer is different.

Q. All right; what is it?

A. I would say there would be considerable difficulty in making any serious penetration into the market. I would like, if I may, to put something on the record for myself. I would like to say that the assumption that 50 per cent would prevent penetration is based on the fact that the 50 per cent differential remains constant throughout the period. That is all.

Q. You talked about a constant 50 per cent. Are you assuming for some reason that Zenith's price would be declining in those four years?

A. Relative prices never remain constant.

63 Q. I know, but are you assuming Zenith's price would be declining?

A. No, I do not think so. I have not made that assumption because I have no reason to know one way or the other, but I would say over the period concerned the prices in the United Kingdom were tending to rise.

Q. I believe you said with a 50 per cent differential, Zenith would have had considerable difficulty in making any market penetration at all during the four-year period?

A. Here you are beginning to talk about figures rather than percentages. If you start doing that, you start talking about compound interest. If you are talking about a set which is retailed at £60, if you have a 10 or 20 per cent difference in the price of a comparable set which has got other advantages—one must assume that—then the effect

on the deposit and the repayments is not material; but when you get to a difference of between £60 and £90, it does become material, in the sense that it is immediately noticeable to the purchaser.

Q. You are speaking about a £60 to £90 price to the purchaser?

A. That is right.

Q. You mean the householder?

A. I took it as an example.

Q. You mean the price to the householder?

A. Yes. I took it as a simple example, because you can relate it easily one to the other.

Q. Are you saying during this four-year period, if the price to the householder got in the £60 to £90 range, that would be noticeable?

A. No, I did not say that at all. If the realtionship
64 between two comparable sets at any one time is as between £60 and £90 then there is going to be a difference. I made no implications at all about any necessary changes that may have taken place over the period. That would need considerable research and documentation.

Q. When did the subject of your answering a hypothetical question from Mr. McConnell first come up? When did he first indicate to you that he was going to ask you a hypothetical question?

MR. McCONNELL: That assumes I did indicate it to him. I do not think you have a right to enquire into my conferences or talks with this witness. I object to it.

MR. KAYSER: I think I have every right to determine what kind of—

MR. McCONNELL: Thank you for telling me what the law is. I do not accept your interpretations of the law, as you must know by now.

THE COMMISSIONER: Do you want to pursue that?

MR. KAYSER: Yes, I want to pursue that. It is a per-

fectly proper question.

THE COMMISSIONER: Do you want to rephrase it?

MR. KAYSER: Yes, all right, I will.

Q. Did you know, in advance of your testimony this morning, that Mr. McConnell would ask you a hypothetical question as concerns Zenith's theoretical market penetration in the United Kingdom?

A. May I consult with my lawyer, please?

Q. Yes, consult with counsel.

(Witness and Mr. Benjamin conferred)

A. The answer, I would say in its broad terms, yes.

Q. When?

65 MR. McCONNELL: Same objection.

A. Thursday evening. Is that right? I think so; last Thursday.

MR. KAYSER: Was the question written out?

A. No.

Q. Did you know what the assumptions were that he would put to you?

A. No.

Q. In other words, you answered that question this morning hearing for the first time the conditions that he put to you as to the hypothetical question?

A. I personally always made it quite clear that any question of market penetration must assume a complete freedom of access in every sense of the term. It was only those two assumptions which I myself mentioned.

Q. Which were those?

A. One which comprises, I imagine, two parts: complete freedom of access to the market. That is no import licence restrictions of any kind, and, of course, no patent restrictions of any kind.

Q. What about tariff barriers?

A. The tariff remains constant. A person who is pre-

pared to compete in the market is assumed to know what the tariff is. Anybody can discover that. It has not altered.

Q. By the way, what is the tariff on radio and television sets? I want to change that: during the 1959 to 1963 period?

A. I cannot answer you that question with a certainty of being correct, but I suspect it to have been 20 per cent.

Q. On both radio and television?

A. I suspect. There might have been a difference between the two, but that is not far off in the range of figures.

66 Q. Did you take the tariff into account in making your estimate?

A. The tariff, yes.

Q. Do you have any idea what Zenith's costs were during the 1959 to 1963 period?

A. None at all.

Q. You have no idea of the costs which they showed in the previous record in this case?

A. None at all.

* * * *

71 MR. KAYSER: May I have Zenith's Deposition Exhibits 9 thru 13, please? (Exhibits handed to Counsel).

Q. These Exhibits, as I understand it, are reports put out by The Economist Intelligence Unit, entitled "Durable Consumer Goods, Television Sets", and bear the number and dates respectively of "1" July 1958, "2" January 1959, "3" July 1959, "4" January 1960, and "5" July 1960. I believe you said something this morning about these books being prepared in the regular course of business.

A. Yes.

Q. What do you mean by that? What do you mean by "being prepared in the regular course of business"?

A. They are available on subscription to anybody who is willing to pay a subscription.

Q. Who in fact buys these books, what type of person?

A. Companies like English Electric, E.M.I. any of the big manufacturers.

72 Q. Manufacturers of television sets?

A. Yes; or did at that time.

Q. Have you stopped publishing this work?

A. Yes.

Q. When did you stop publishing it?

A. This year.

Q. Your last issue was—

A. February of this year.

Q. 1965?

A. Yes.

Q. Was this bought by anyone other than television manufacturers?

A. Not these ones. There were others, of course.

Q. I am referring to ones dealing with television sets.

A. No, I do not think so.

Q. Were they purchased by distributors?

A. No.

Q. So far as you know, what was the purpose of the manufacturer buying this?

A. To assist the acceptance of their models.

Q. And also to get assistance in determining the trend of the market?

A. That is right; the immediate acceptance, to what extent the ownership indicated they had got a good acceptance, comments on various incidents of design, colour and things of this kind; not colour pictures. It is an indication of what had been purchased recently, which sets had been purchased recently, whose sets, and an indication of

73 what was the intention to purchase, what proportion of the respondents intended to make purchases in the next six months and, if so, what did they do, what kind of sets did they intend to purchase.

Q. You also included information, did you not, concerning problems of the industry, such as (for example) problems of the 625-line scanning?

A. Yes. That would be treated in the general economic appreciation, probably.

Q. Is it the purpose of this work, which came out every six months, to aid the manufacturer in determining what factors might influence the trend of his sales?

A. Yes, amongst other things.

Q. Also, the extent to which imports might affect his sales?

A. This would be certainly relevant but much more relevant to some of the other consumer durables than these. It would be relevant on all consumer durables. That is, should there be an alteration in policy, or a sudden change in trend in the volume of the imports, we would draw the attention of our subscribers to that fact; and if there was any possibility of a change taking place in the immediate future, a change of policy, we would certainly draw their attention to that fact.

Q. Was this work also available to importers?

A. Certainly; anybody.

Q. Do you know any importers or would-be importers that ever purchased it?

A. Not speaking off-hand.

Q. You do not know whether Zenith ever purchased any of these?

74 A. I do not think they ever did.

Q. You have said that this work was published—and I am referring to Zenith's Deposition Exhibits 9 thru 13—in the regular course of business, and I do not believe you told me what you meant by that.

A. Our organisation is always having ideas about new publications which we can produce and sell at a profit, we hope. This is one of them, one of our less successful ones.

Q. In other words, this is a type of report which you customarily and in the regular course of business gather and publish in a number of industries; is that right?

A. Yes. This one covers all the main consumer durables.

Q. But this particular one, this Exhibit, had to do with television sets?

A. That is right. Normally you find that the first part of each issue closely resembles that in the others.

Q. Do you have any regular routine for gathering and preparing the information which is in this booklet?

A. Yes, we had.

Q. What was that routine while it was being published?

A. We started off by circularising potential subscribers in this country and outside, but largely in this country, because we felt it was largely something of interest to somebody who was established here, whether he was an established manufacturer or distributor in this country. So we circularised those people, and I think the subscription was £750 a year for up-to-date ones, on which, if you took a large number of them, which some companies would, as you might imagine, there were certain discounts available. The procedure was that British Market Research Bureau interviewed a random sample of 3,000 people twice yearly—not the same ones, of course—and that was produced to us, after analysis—that is, after computation—for comment,—

Q. Have you found their work to be reliable?

A. Yes, certainly.

Q. I interrupted you.

A. —and simultaneously we would be doing the introductory part of the report; that is, the part which is not affected by the returns of the interviews, dealing with the economic situation, the labour situation, the raw material situation, and so on. Then those two would be married and, at the final stage, reproduced and despatched to the sub-

scribers. Then there is a certain system worked out by which earlier copies can be bought at steadily increasing discounts.

Q. You said that this British Market Research Bureau interviewed a group of 3,000 people.

A. A random sample.

Q. There is information in here, is there not, also, as concerns manufacturers and the B.B.C. and governmental regulations and so forth?

A. Yes.

Q. Where did that come from?

A. That would come from us.

Q. You gathered that?

A. Yes; all that from us.

76 Q. And naturally you believed the same to be reliable?

A. We do our best.

Q. How wide a circulation did this work have while it was being published?

A. Maximum 7 to 8.

Q. Do you understand that the people that paid this £750 per year for these two reports acted, in part at least, in reliance on the material in it?

A. In some instances, yes.

Q. I believe you said that this work was prepared under your supervision.

A. That is a general term. I have four Research Divisions under my supervision, of which this is a quarter of one, or an eighth of one, I would say; but I take responsibility for it.

Q. I noticed that in some of those reports there is a reference to BREMA. What does that stand for?

A. BEMA I could well understand.

Q. What does BEMA mean?

A. British Electrical Manufacturers Association.

Q. In any event, the British Electrical Manufacturers Association you believe is BEMA rather than BREMA?

A. I think so. We do have misprints, too, sometimes.

Q. I call your attention to page 39 of Zenith Exhibit 10, which is a January 1959 report. There is a reference there to BREMA. Can you identify that company or whatever that set of initials stands for?

A. It is something to do with the British Retail
77 Electrical. That is all it is. It consolidates sales returns from electrical retailers who are members of the Association, I think. It sounds like it from the context.

Q. In referring to Zenith Deposition Exhibit No. 9, which is the July 1958 report, I notice on page 1 a statement: "Since the end of the 1939-45 war, the U.K. economy has enjoyed twelve years of virtually unbroken expansion. Such setbacks as occurred were mainly due to the inadequacy of the foreign exchange reserves, which were insufficient to prevent balance of payment crises from recurring almost every other year. Government action to deal with these crises invariably took the form of damping down home demand for both consumer and investment goods and encouraging export, and this action tended to slow down the rate of expansion of the economy". Am I correct in understanding, then, that there was a balance of payment problem up until this July 1958 date?

A. Yes.

Q. I believe you said this morning that you were aware that there were import restrictions imposed accordingly on imports from dollar countries.

A. They were widely imposed, including dollar countries.

Q. Did the Intelligence Unit ever make a study of these import restrictions for any client?

A. Yes.

Q. Did the Unit ever make such a study for Zenith Radio Corporation?

A. No, not specifically.

78 Q. What do you mean by "not specifically"?

A. It would have been mentioned, I have no doubt, in this report.

Q. You are referring to this April 1959 report?

A. Yes.

Q. You know of nowhere else where any such specific study was made for Zenith?

A. No.

Q. Now, on page 61 of this same July 1958 report you state, as to imports: "Imports of television sets into the U.K. in recent years have been of little importance. This was probably due in part to the different line system in use in the U.K. and to the technical advantages enjoyed by British manufacturers". What was the difference in the line system used in the U.K. as against the line system used elsewhere?

A. We had a 405, I think, and still have. Most other countries had 625.

Q. Do you know what the line system is in the United States?

A. I think it is 625, but I do not know.

Q. Do you know what the technical advantages were enjoyed by British manufacturers referred to here?

A. This country was the pioneer in television, I think. That was the implication.

Q. You mean the United Kingdom?

A. Yes. If it had not been for the war, we should have had it first.

Q. And so the British manufacturers did have technical advantages, the Unit felt, as against others?

A. We felt so. We may have been wrong, but we felt so at that time.

79 Q. You felt they also had technical advantages as against the American manufacturers; is that right?

A. That is there by implication, though I think one should realise that it was generally thought that the more dangerous manufacturers at the time that was prepared were likely to be in Europe.

Q. The more dangerous manufacturers. What do you mean by that?

A. This report was looking at it from the point of view of a manufacturer in this country who had to anticipate, or he ought to have anticipated, what was going to happen in the future. We thought that he was sufficiently protected, as far as technical ability was concerned, from the Europeans at that time. Have I made myself clear?

Q. I believe so. I believe that all, or almost all, of these reports that have been marked as Zenith's Deposition Exhibits made reference to imports. Was it your practice, when you were publishing this work, to report all relevant information as to imports and factors affecting imports which came to your attention?

A. No. This was a comparatively unimportant part of those reports.

Q. What information concerning imports did you try to ascertain?

A. Anything that immediately would be likely to have a major effect.

Q. Any aspects which might have a major effect on imports?

A. Yes. You must appreciate that these reports had a very simple object, and this was to deal with the current situation as far as ownership and attitude to existing sets was concerned.

Q. In your January 1959 report, Zenith's Deposi-
80 tion Exhibit 10, on page 38, you again commented on imports as follows: "Imports of television sets into the U.K. are of very little significance. This is in part due to the different line system in use in the U.K., but also reflects

a strongly entrenched position of the home industry". I gather from this that you felt that the fact that the U.K. had the 405-line system made it impractical for foreign manufacturers to import; is that right?

A. Would you repeat that for me?

Q. I said: I gather from this paragraph which I have just read that you felt that the fact that the U.K. had the 405-line scanning system made it impractical for foreign manufacturers to import.

A. Well, I think it means what it says, that this is in part due to the different line system in use in the U.K. It also reflects the strongly entrenched position of the home industry.

Q. What did you mean by "the strongly entrenched home industry"? What bearing did that have?

A. It is difficult for me to interpret the mind of a person at that distance, but the implication which I would take would be that they had such control over the manufacturing facilities—manufacturing facilities in the fullest sense of the term—and the distribution system that it would have been difficult for somebody to come in from scratch. That seems the implication.

Q. Now, as concerns the difference in the line system between U.K. and other countries, to what extent did you believe, or did the Intelligence Unit believe, that this would affect their ability to import?

81 MR. McCONNELL: I object to that question. That assumes that Zenith, for instance, could not have produced a 405-line system, which is not the fact.

MR. KAYSER: Will you answer the question?

A. Yes. The assumption, which may or may not have been correct, is that quite obviously there was no market for 625 line sets—that is fairly obvious—but it would have been not worth while for a manufacturer who had not got a very major prospect of total sales in this country to change

his production facilities to enable him to produce both 625, or whatever it may have been, and 405 sets. This is the assumption, that it would have required a major capital investment, and to have made that capital investment the manufacturer concerned would have had to have had some reasonable assurance of a good potential market.

Q. You talked about having a major prospect in the British market.

A. I think he would have to have a potential of something between 50,000 and 100,000 sets, on the average.

MR. McCONNELL: Is that per year?

A. Per year, yes, on the average. I might be quite wrong in that, but I would think so.

MR. KAYSER: There were a number of well-known foreign brands, were there not, at this time?

A. In this country? Not in volume, I think, no volume. I do not think so. If there were, they were local manufacturers.

Q. There were a number of brands well known in their own country who could have afforded this kind of investment, were there not?

82 A. At that time? Few who had not got a manufacturing subsidiary in this country, if any, if you are referring to Europe.

Q. I am referring to Europe and the United States.

A. You are getting on to questions of marginal cost of producing a television set, which is difficult.

Q. You talked about a major investment which would have to be made.

A. This was the assumption we made. You were asking about this particular point in our report.

Q. Yes.

A. My interpretation of that remark in that report was that the implication was that the protection which this country received, apart from this, was the fact that we thought

that to introduce manufacturing facilities to provide sets solely for a 405-line market would have entailed a considerable capital investment. This is my interpretation of that remark.

• • •

84 Q. I gather you reported the release of controls on the import of radio and television from the dollar area because you thought this was an event of significance?

A. Yes.

Q. What significance did you think it had?

A. It was just a warning of possible competition.

Q. You said on page 42 of the same July 1959 report: "Imports of television sets are still not sufficiently important to be shown separately in the trade figures and represent only a negligible addition to the total supply of sets to the U.K.."

A. Yes.

Q. In other words, the imports were not sufficient to list separately?

A. Quite so.

MR. KAYSER: I would like the reporter to mark as Plaintiff's Deposition Exhibits 17, 18, 19 and 20 *these* four additional copies of the Intelligence Unit reports, which I will then ask the witness to identify.

(Intelligence Unit Reports Nos. 6, 7, 8 and 9 marked "Plaintiff's Deposition Exhibit No. 17", "18", "19" and "20", for identification).

85 MR. KAYSER: I hand the witness Plaintiff's Deposition Exhibit 17, which is marked "No. 6, January 1961, Durable Consumer Goods, Television Sets"; Plaintiff's Deposition Exhibit 18, "No. 7, July 1961", entitled "Durable Consumer Goods, Television Sets"; Plaintiff's Deposition Exhibit 19, "No. 8, January 1962", similarly entitled; and Plaintiff's Deposition Exhibit 20, "No. 9, July 1962", similarly entitled.

Q. Are these later copies of the report on consumer durable goods, specifically television sets, which you previously testified to?

A. Yes. They are further issues.

Q. And these documents, Plaintiff's Deposition Exhibits Nos. 17, 18, 19 and 20, were all prepared in the regular course of business in the manner previously described and under your supervision?

A. Yes.

Q. And have all of the attributes which you have ascribed to the previous volumes?

A. Yes.

Q. On page 19 of Plaintiff's Deposition Exhibit 17, which is the January 1961 report, some year and a half after the embargo had been lifted on June 8, 1959—

MR. McCONNELL: Wait a minute.

MR. KAYSER: Strike it out.

MR. McCONNELL: I move to strike it out. You are not a witness in the case yet. You might get there.

MR. KAYSER: On page 19 of the January 1961 re-
86 port you say, on imports, and I read: "Deliveries from overseas are small, and no official import statistics are published; but, should the 625-line system be adopted, the importation of sets would become more practical, and in the early months imported sets might be available at lower prices than those of home-produced sets". In other words, at this point, the importation of sets was still not practical because of the 405-line system?

MR. McCONNELL: He did not say that. Why do you want to torture his words?

MR. KAYSER: I am asking him if that is the fact.

MR. McCONNELL: I object to it. It is not proper cross-examination, and putting an assumption in the question which the witness has to agree to in order to answer your question. It is an improper question. He does not

have to answer a question like that if he does not want to, if he has to assume something which is not true,

MR. KAYSER: If he feels my statement is incorrect, he can say so.

A. I do not think there is anything more to be said than what is actually in the report.

Q. You consider the report to be an accurate statement, however?

A. Yes, it is an accurate statement. It makes a statement that deliveries are small and that the introduction of the 625 system might have some effect. It says no more.

Q. Why did you believe that if the 625-line system were adopted, in the early months sets might be available at lower prices than those of home-produced sets?

MR. McCONNELL: This is not his statement. He did not write that statement.

87 MR. KAYSER: He has stated this was under his supervision.

MR. McCONNELL: You are asking what was in his mind when it was written. I object to the question.

MR. KAYSER: He says he stands at the back of it as responsible.

MR. McCONNELL: Sure; but you are asking what was in the person's mind who wrote it. How does he know? I object to the question.

MR. KAYSER: (To the witness): Then, what is the basis of the statement that in the early months imported sets might be available at lower prices than those of home-produced sets?

MR. McCONNELL: If he knows.

A. I think that possibly we did know, and the reason for it was that because of various forms of protection available to the British industry, the prices in this country were on the whole inclined to be higher than they were in other countries, including the United States.

MR. KAYSER: And how would the 625-line screen change that?

A. If a 625-line set is available, for example, at £50 in the United States or France or Italy or Japan, or wherever it may be, and the comparable 405-line set here costs £60, then if 625-line sets were introduced here, obviously the importation at a lower price is more than possible. That is what that means. It means something quite different to what you think it means, if I may say so.

Q. What are these various kinds of protection that you referred to in your answer?

A. In fact, the 405-line system is in itself a protection. Certainly, whilst it is said here that there was a free-
88 dom—"freeing" is the word—of importations from external sources, this was (if I may use the term with all due respect) a politician's remark. "Freeing" should be read in quotes. It is a relative term. The freeing of imports means they make it slightly more easy to obtain imports. It does not mean, if in any of those areas somebody made an application to import a large number of television sets from (shall we say) Japan or Western Germany or France, this would have necessarily been permitted. It does not mean that at all.

Q. What are these external forces that I thought you referred to in your answer?

A. Internal. This market has certain inherent protections, as every market has, one of which was this 405 lines, without question. There were certain other things, largely dealing with the difficulty of obtaining a sufficient quantity of foreign exchange. This did not always mean that it was impossible for foreign manufacturers to export to this country in quantities which were viable, but it did not imply that there was complete freedom.

Q. Were there still currency restrictions in January 1961 which affected the import of television sets?

A. Yes. Try now and see what happens.

Q. What would happen?

A. You would find it very expensive to buy your currency; but these are comparatively unimportant points, really.

MR. McCONNELL: I do not think the witness understood your question. You were trying to ask him what
89 he meant by the high price that was fixed in the English market. That is what he was talking about.

MR. KAYSER: Mr. McConnell, I would suggest that you might let me conduct my examination.

MR. McCONNELL: I would like to have an answer to the question you asked. That is all I am saying. He did not get it.

MR. KAYSER: Thank you, Mr. McConnell; but please may I conduct my examination?

MR. McCONNELL: Go right ahead. It is certainly a marvellous exhibition. You ought to be proud of it.

MR. KAYSER: Maybe you can clear up one point here, Mr. Mills, and that is this: I believe you said in a number of these reports that there are no official import statistics published on television, apparently because the imports are so small, but yet I believe in one of these Exhibits that you produced this morning you have shown some statistics. Will the answer to that come possibly in the documentation that we are awaiting?

A. If it is available, that is. The answer is that in most cases every import which has got a Customs classification number is itemised, but the small quantities from any individual country are not normally published in this book. But they are available in the records of Customs and Excise, and therefore can normally be obtained on request, subject to the proviso that they must have a classification. If there is no classification, no individual figures are available.

Q. I refer you now to page 20 of the July 1961 publication, which is Plaintiff's Deposition Exhibit 18 for identification. Reading again under the heading "Imports", it says: "Statistics showing the volume of import deliveries are not available, but it can be assumed that these remain negligible, as Britain is the only major country using sets designed for the reception of pictures on the 405-line standard. The British market is not, therefore, open to foreign manufacturers unless they are prepared to design standard models to meet the British line standard". In other words, in July 1961 the problem of the 405-line standard was still posing a major problem to foreign manufacturers?

MR. McCONNELL: I object to that. How does he know whether it was a foreign problem or a problem of importers to Zenith Company?

A. May I look at that?

MR. KAYSER: Surely. Is that quotation which I read a correct statement of what you reported to the industry in that book?

A. Absolutely correct. We merely make a statement of fact—two statements of fact; firstly, that this is the only major country using a 405-line standard and, secondly, that in order to get into this market, foreign manufacturers must build sets with a 405-line standard; and that is all we say. We say nothing more than that at all, and there is no implication.

Q. Let us go to July 1962. I refer to page 22. In that booklet, which is Plaintiff's Deposition Exhibit 20 for identification, you say: "There are virtually no imports of television sets at present, though, as seen above, the changeover to 625-line transmissions will make them feasible. Because of the many differences that remain between British and Overseas makes of television sets, however,

91 imports are likely to grow only very slowly, if at all, in the coming months". By July 1962 had there been a changeover to the 625-line standard? Let me call your attention to pages 18 to 20, which deals with something called the Pilkington Report.

(Plaintiff's Exhibit 20 handed to the witness).

(The reporter read the question).

A. No.

92 Q. Was such a change then in prospect?

A. Yes.

Q. Could you explain the reason it was in prospect?

A. Because of the recommendations of the Pilkington Committee that there should be a second television network which initially should be on the 625 line U.H.F.

Q. This is the Pilkington Report referred to at page 18 and following of this July 1962 report?

A. Yes.

Q. That was a report and also a recommendation?

A. That is right.

Q. Do you know: Has that recommendation been carried out?

A. Yes.

Q. And what station or channel has the 625 line—

A. B.B.C.2.

Q. When did that start broadcasting?

A. April/May 1964, I think.

Q. You say "Because of the many differences that remain between British and overseas makes of television sets, however, imports are likely to grow only very slowly, if at all, in the coming months". What are the many differences which remain which you refer to there?

A. I am afraid this is a technical question which I am not in a position to answer.

Q. You mean even when the 625 line standard comes in, which I believe you said was the European standard . . .?

A. Yes, all except France.

93 Q. There would still be many differences that remained between the British and the foreign set?

A. That is what it says, but I cannot give you a direct answer. I cannot tell you what the differences are.

Q. Except that there were some?

A. That is what it says.

Q. You have no reason to doubt the correctness of this report?

A. No.

Q. Do you know when television manufacturers in England started putting out sets with the 625 line screen?

A. 1964.

Q. In 1964?

A. Yes. Maybe a little earlier, but I doubt it.

Q. But at the same time the sets are also adapted for the 405 line screen, are they not?

A. This is normal.

Q. So at present the British manufacturer puts out the set which is adapted for both the 405 line and the 625 line screen?

A. Correct.

Q. Does this create any sort of a manufacturing problem; do you know that?

A. I have no knowledge of that.

Q. Now going back to page 19 of this July 1962 report, referring to it specifically for the first time, you say: "However, it is often asserted that the decision to switch to 625 lines will greatly encourage both imports and exports of television sets as the same sets will become suitable
94 both for the British and foreign markets. However, in the first place there will be no market for 625 line only sets in the immediate future". You were referring to a market in Great Britain, were you not, or the United Kingdom?

A. Yes.

Q. Because the consumer would not buy a set that would not get the present stations?

A. That is right.

Q. Then you say: "Secondly, British sets have always been less elaborately designed both internally and externally than most foreign sets, partially because of the high purchase tax in this country. The present trend towards plain rented sets may confirm the British in this taste for cheapness and simplicity": Am I correct to understand from this that the trend on the British market was to buy a set on the basis of price because of the high purchase tax?

A. Yes, I think that is on the whole true, at that time anyway.

Q. This was in July 1962.

A. I think so.

Q. What is the meaning of this reference to "trend towards plain rented sets"? What is the fact as concerns the rented set?

A. It just means it has been a trend, which has continued, for people to rent their sets rather than buy them. That is simple rent rather than hire purchase rent.

Q. They were looking for a set with a low rental?

A. Not necessarily.

95 Q. They were looking for a plain set?

A. No. The "plain" refers to the rental, not to the set. I am sorry.

Q. I do not quite understand that. You say "The present trend towards plain rented sets may confirm the British in this taste for cheapness and simplicity".

A. It may.

Q. Does not the reference to "cheapness and simplicity"—

A. No, I do not think so. Personally, my interpretation is that the "plain" refers to the method of renting.

Q. Do you know by this time, July 1962, what portion of television sets of the British sales were being rented rather than purchased?

A. Not off hand, but it was increasing rapidly.

Q. You also say on page 19: "The Zenith Radio Corporation has announced its intention to enter the market with 625 line only sets to be distributed by United Mercantile Company, but by stating that 'we do not intend to compete on price but only on quality and service' they concede that their sets are too expensive for the majority". Do you recall the means whereby you got this announcement? Was it a Press release or newspaper story or what?

A. The announcement I would imagine, I am sure, was a Press release or something of that kind. I should think so. That was about their first entering the market. It must have come from a Press release, I am sure.

Q. Do you know whether Zenith has entered the 96 market with 625 line only sets?

A. No.

Q. You do not know whether they did or not?

A. No.

Q. If they did, do you know whether there would be any market for a set in Britain having only 625 lines?

A. No, there would not be.

Q. There would be no market for such a set?

A. No. This is a question which is: If B.B.C.2 had been very successful there might have been a market, which nobody certainly knew at that time whether it was going to be successful or not. They certainly know now.

Q. But we know as a matter of fact that if they had entered the market with a 625 line only set they could not have marketed it; is that right?

A. They would have found considerable difficulty.

Q. Do you know whether Zenith has entered the market with any television set?

A. No.

Q. You still have the 405 line system to-day, is that not right, on your B.B.C.1 and on your I.T.V.?

A. Yes.

Q. The B.B.C.1 is your educational station and I.T.V. is more of an entertainment station; is that right?

A. You can put it that way if you like. I do not know how the B.B.C. would accept it.

Q. B.B.C.2 has not been a tremendous success?

97 A. It has not. It has not gained the viewship expected.

Q. Why not?

A. I would not like to say. It has not had success, whatever the reason might be.

Q. It has not had acceptability for some reason you prefer not to say?

A. There are hundreds of possible reasons. I do not think it is relevant.

• • •

124 Q. Do you know how many television manufacturers there were in the United Kingdom in the late 50's?

A. I could not give you an exact answer.

Q. I call your attention to page 41 of Zenith's Deposition Exhibit No. 9, which is the July 1958 Television Report, the first paragraph. I ask you if that is a correct statement.

(Exhibit handed to the witness).

MR. McCONNELL: Could I see that a minute before he answers?

(Exhibit handed to Mr. McConnell).

A. I have no reason at all to believe it is not true.

MR. KAYSER: That states, does it not, that there are 40 main producers of radios, radiograms, record players and television sets? It says: "There are a number of smaller scale assemblers whose total output accounts for no more than 5 per cent of the total production of these goods".

A. Yes.

• • •

138 Q. Referring to Zenith Deposition Exhibit 6, the report for Zenith, what is the purpose of a report such as this?

MR. McCONNELL: I object to that. He doesn't know what is in the mind of Zenith management, and I do not know how he can testify to it.

MR. KAYSER: For what purpose did you understand you were preparing the report?

MR. McCONNELL: I object to his understanding. The only people who can give you that information are the Zenith officials.

MR. KAYSER: Would you answer the question?

A. I can only answer it from the point of view of the purpose which we attempted to fulfil. We were asked to provide information on the production, market situation, imports and exports situation in as full detail as circumstances permitted, and this we did to the best of our ability.

Q. Did you attempt to include all information which you felt would be relevant in the event Zenith should wish to manufacture in the United Kingdom radio and television sets?

MR. McCONNELL: That assumes that we wanted to manufacture or somebody told him that. I have heard no evidence of that kind. We did not attempt to manufac-
139 ture and never have and never wanted to, as you know full well.

A. We were never told the purpose of obtaining the report. We seldom are. We were merely given a list of instructions or we worked one out jointly which showed what information was required, and we did our best to obtain that information.

MR. KAYSER: You say you were given a list of instructions which you worked out jointly. With Zenith?

A. I am assuming this must have taken place. As you know, the file of correspondence is no longer available.

Q. But this would be your normal course?

A. That is so.

Q. To be given a list of instructions before you engaged in a survey?

MR. McCONNELL: I object to speculation about what might or might not have occurred between Zenith and this organisation. You are only speculating. The witness has no knowledge about it whatever.

MR. KAYSER: Is that your normal procedure before you begin a report?

MR. McCONNELL: I object to his normal procedure.

MR. KAYSER: Can you answer the question, please?

A. It is our normal procedure.

Q. And can you state whether or not you attempted to include all information which would be relevant if Zenith were to wish to import radio and television into the United Kingdom?

MR. McCONNELL: I object. This is a hypothetical question.

A. Mr. Counsel, this was not that kind of report.

140 MR. KAYSER: What kind of a report was it?

A. It was a report which is what we call a straightforward report. That is, we were not informed of the motivation of the client in any way. We merely discussed some information which they required, and it was on that basis that we prepared this report. We do in fact prepare other reports which are based on very different terms of reference, but this was not one of them.

Q. But the subject-matters that are in this report are the subject-matters that you were asked to cover?

A. Most certainly.

MR. McCONNELL: Now I move to strike that unless we can have some conversation at which this witness was present. Apparently he never talked personally to anybody.

A. No.

MR. KAYSER: But you at that time had supervision over the preparation of this type of report?

A. Yes.

Q. You are familiar with the procedures that were followed at that time?

MR. McCONNELL: I object to what was done with reference to this report unless this witness has personal knowledge as concerned any talks or directions from Zenith Radio Corporation. Anything that occurred outside his presence is hearsay.

MR. KAYSER: He can certainly state what the usual course of business was.

MR. McCONNELL: I object to the usual course of
141 business. If you are going to try to bind us by something you had better get into some conversations.

MR. KAYSER: I believe there is a question pending.

A. Could I have it repeated? I am sorry.

THE COMMISSIONER: Would you repeat the question to the witness?

(The reporter read the question).

MR. McCONNELL: I object to that. We cannot be bound by the unilateral procedures of this concern, even though we retained them. We are not bound by their customs.

MR. KAYSER: Would you answer the question, please?

A. Yes.

MR. KAYSER: Just read the question again. (The reporter re-read the question).

Q. And did those procedures involve covering in the report made for a client the subject-matters that he or it asked you to cover?

MR. McCONNELL: I object to that. That is an attempt to show in a back-handed way an instruction which the witness has already testified he knows nothing about.

MR. KAYSER: Can you answer the question?

A. Yes.

Q. Yes, you did follow whatever instructions the client gave you as to subject-matter?

MR. McCONNELL: I object to that. He doesn't know whether any instructions were given. Now this is a very improper method of examination, as you well know, and in due course it will be brought to the attention of the Court.

I have put up with this sort of thing long enough.

142 MR. KAYSER: Could you answer the question?

A. Up till this last question you were asking me general questions about whether I was aware of the procedure followed by my company.

Q. Yes.

A. And whether I was responsible for the work carried out at that time. Now I think your question is more specific.

Q. I asked you whether or not the procedure of your company was that when you prepared a report you covered the subject-matter which the client asked you to cover.

MR. McCONNELL: I object to that course of procedure. That was not the first question you asked him. That was whether or not he followed it in this case, which is an indirect way of attempting to show something by hearsay which he has no knowledge about. I still object to the question, but it is not the same question you asked the first time.

MR. KAYSER: Could you answer the question, please?

A. Speaking in general, the majority of our work is done on closed end instructions, but by no means all.

Q. What do you mean by "closed end instructions"?

A. I mean the terms of reference are established before the work commences. That is what we call closed end. On the other hand, quite a large proportion is what we call open end instructions. That is, the general requirements are established, but as with most kinds of research it is in fact unlikely that you know what you can provide or what is

of value or not of value until you have gone some way
143 in doing the research. It is very often left open-ended, particularly in countries where statistics are not available in large quantities.

Q. In April 1959 could a U.S. manufacturer have sold television sets in the United Kingdom without having some wholesalers or distributors as a means of getting them into the market? I am speaking, I should say, after June 8, 1959, when the restrictions were released.

A. For a quantity sale he would need distribution and service facilities. It would be impossible to sell them otherwise.

Q. What other means could he use?

A. There are a lot of very expensive and very high class materials which are sold by certain departmental stores in this country which have a more or less exclusive right to them. The American dish-washers are an example of that method of approach.

Q. They are sold solely through department stores?

A. To the best of my knowledge, yes.

Q. That provides a limited market, does it not?

A. Limited to a point.

Q. If a television manufacturer made contact with wholesalers or distributors, would that involve any expense on his part?

A. Quite considerable.

Q. So he would have very substantial start-up costs at the initial stage?

MR. McCONNELL: I object to characterizing it as "very substantial". The distributing costs I assume would be the same for everybody in the industry, whatever they did in the way of distribution, and I object to the characterization as "substantial". What is substantial is not defined.

144 MR. KAYSER: I will rephrase the question.

Q. Would the manufacturer who came into the market have initial costs in this area which would not be present to a manufacturer who had been in the market for a number of years?

A. Yes.

Q. What would the nature of those costs be?

A. They could be very small or very large, depending on what policy decision the manufacturer made as to the kind of distribution or organisation he wanted to start with. If you wanted to come to an arrangement with two or three large retailing groups or wholesalers who do 10 per cent of the market or so, that would not be very expensive. If you wanted to establish a fully-fledged distribution and service organisation throughout the country, it would be expensive.

Q. I believe you stated in your report to Zenith at page 162 under "Price trends"; "Prices have on the whole been falling. Amalgamation and rationalization of production together with technical changes and increasing competition have kept prices down. Prices are, however, increased by the addition of purchase tax, at present 60 per cent of the wholesale price". Did that drop in prices continue during the succeeding years 1959, 1960, 1961, 1962 and 1963?

A. I cannot answer that question without looking back on the figures.

Q. At page 163 of the report you state: "A large proportion of tape recorder, mains radio and television set cabinets in use are of wood, particularly in the case of the more expensive sets. Plastic cabinets are used for cheaper sets increasingly, for more expensive ones and particularly for battery sets". It was true, I gather, that for the more expensive set wood was the product normally used in making the cabinet?

A. At that time. If it says so, I am sure it was so.

Q. I notice also on page 163 a statement that the figures for 1958 are for the first half of the year and show the in-

fluence of the slight recession then in progress and the trend towards the cheaper portable models. Did that trend towards cheaper portable models continue?

A. I cannot answer a question of that kind. You would have to do a detailed examination of what happened in all subsequent years to give you an exact answer to that.

Q. In other words, you do not know?

A. Quite so.

Q. On page 164 of the report you say: "Broadly speaking the two factors which affect sales most are price and visual aspect considerations, neither of which can be particularised". What do you mean by "visual aspect considerations"?

A. I will read the context, if I may.

Q. Surely.

A. (After perusing the document): I would say that the intention is to state that when a person goes into a shop he is influenced by two factors, firstly price, but not necessarily more important; secondly, the appearance of the set.

Q. Do you have any knowledge as to what the appearance is which the English public generally prefers?

A. No.

146 Q. I notice that in this April 1959 report no conclusion or recommendations appear, although in your six months or semi-annual reports you normally do have some comments?

A. Yes, correct.

Q. Did you subsequently to this or with this report make any recommendations to Zenith?

A. Not to the best of my recollection. It would not be normal with a closed end report.

147 Q. And this is a closed end report?

A. It certainly is.

Q. Last Wednesday I asked you a question about this Plaintiff's Deposition Exhibit No. 19, which was the Jan-

uary 1962 television sets report. I asked you a question about the statement on page 15 that Zenith had announced their intention of entering the U.K. Market if the 625 line system was adopted. I believe you testified: "The announcement, I would imagine—I am sure—was a press release, or something of that kind. I should think so. This was about their first entering the market. It must have come from a press release, I am sure".

A. Yes, or published information.

MR. McCONNELL: What are you asking him, that he did testify that? Is that what you want to know?

MR. KAYSER: Yes. I am, first, refreshing his recollection, because I believe there was a similar announcement in an earlier report.

MR. McCONNELL: Are you going to testify now about what there was? If you are, you had better get sworn and get on the witness stand, and I will cross-examine you.

MR. KAYSER: I am going to have to go off to another subject until I can find my notes on the earlier report. I will come back to that after lunch.

THE COMMISSIONER: It is now 12.18.

MR. McCONNELL: Have you any idea how long this cross-examination is going to take? The reason I am asking is I have a witness who is coming here at 2 o'clock, and I do not want him sitting around here all afternoon if you are going to be all afternoon with your cross-examination.

148 MR. KAYSER: I would estimate another hour to an hour and a half.

MR. McCONNELL: All right.

MR. KAYSER: Are you familiar with a company known as the United Mercantile Company?

A. Yes.

Q. Who are they?

A. They are merchant bankers and providers of hire purchase finance. I think I am correct. That is what I think

of them as, anyway.

Q. Actually, to be fair with you, I am referring to a company which I understand to be a Zenith distributor here in London. You do not know who Zenith's distributor is?

MR. McCONNELL: I move to strike that statement. It is about as irrelevant as everything else you have got in the record.

MR. KAYSER: Well?

A. I answered your question, to the best of my knowledge.

Q. Yes, you did, I agree. I want to refer you to the January 1959 report, Zenith Deposition Exhibit No. 10, page 39. You say there: "There is a definite trend towards cheaper television sets. The average retail list price (including purchase tax) of home disposals by manufacturers of television receivers has fallen steadily since 1955. In December 1955 the average price of a 14 inch model was £71. 0. 0. and a 21 inch model £149. 10. 0. In December 1956 the figures were £67. 15. 0. and £107. 15. 0, in December 1957 £61. 10. 0. and £103. 10. 0. and in June 1958 £60. 0. 0. and £98. 10. 0. respectively. This trend is likely to be reinforced by competition within the industry as well as technical improvements". I hand you the exhibit. Can you state what the technical improvements were that were supposed to drive the price down?

149

MR. McCONNELL: If he knows.

MR. KAYSER: If he knows.

A. There were two developments going on, and have been going on ever since that time. First of all, the introduction of certain replacements, or so I understand, for the cathode ray tube, the introduction of diodes and triodes, and things of that kind, which not only gave a reduction of the initial cost, of the components going into the set, but also reduced the size of the set. Secondly, there was a trend

towards printed circuits—I think that had already commenced—which was also a considerable saving, particularly in labour. These are the trends which, to the best of my non-technical knowledge, were the ones referred to there.

Q. Referring to Zenith Deposition Exhibit No. 11, which is the July 1959 issue, on page 42 you state, under the heading "Trends in Production, Exports, Imports and Supply", then under "Production": "As was expected, the removal of hire purchase controls last autumn made for a record year and production, at 1,985,000 sets, only just failed to reach the two million mark for the first time. Production in the last quarter of 1958 at 682,100 sets was the highest in any quarter since 1956". Then lower down on the page you say: "Home sales in the last quarter of 1958 were a record at 937,000 sets and were half as much again as those in the corresponding quarters of 1956 and 1957. Sales continued at a high level in the first quarter of 1959, and though seasonally down on the previous quarter's figures were 62.4 per cent higher than a year earlier. In April the advance on 1958 was even more spectacular, and sales at 176,000 sets were 141.6 per cent greater than in the previous year". Then you comment on the removal of the restrictions on hire purchase transactions. What is a hire purchase transaction?

A. A hire purchase transaction is where you pay a deposit, which in law varies according to the Government regulation which is in force at the time but which normally sets a minimum—

Q. A minimum down payment?

A. Yes—and the purchase is then completed by a series of monthly payments, incorporating both principal and interest.

Q. Is there a control also over the term of the monthly payments under hire purchase?

A. Yes, the period can be controlled.

Q. Is it fair to say that 1959 was a banner year for television production and sales in England?

MR. McCONNELL: I object to that. That does not mean anything, "banner year". It does not define anything. The figures are the best evidence of what it was.

MR. KAYSER: Is it fair to say that the sales were very high in comparison to previous periods?

A. If that is what it says in the report, I am sure it is true.

MR. McCONNELL: All he is doing is saying the report is correct. I object to it. The report speaks for itself.

A. I am sure this report is correct.

MR. KAYSER: You say, however, on page 43: "The number of television sets in use has, however, risen
151 very sharply in recent years and the domestic market is approaching the point of saturation. Unless, therefore, some new factor, such as the introduction of colour television, stimulates a quicker replacement of existing sets, sales may well tend to fall back in the longer run". Is it a fact that in the years after 1959 the sales of television sets declined in comparison with 1959?

A. Without referring to figures, I cannot be sure, but I would have said that the rate of growth was slower.

Q. Would you say that the total sales, in comparison with 1959, declined?

MR. McCONNELL: I object to that. The best evidence of that would be Government statistics as to sales; not what the witness speculates upon it.

MR. KAYSER: Do you know?

A. I do not know definitely.

158 Q. At page 95 on Wednesday, as I said this morning when I could not find the papers, I asked you about the reference in the July 1962 report to the effect that "The

Zenith Radio Corporation has announced its intention to enter the market with 625 line only sets to be distributed by United Mercantile Company, but by stating that 'We do not intend to compete on price but only on quality and 159 service' they concede that their sets are too expensive for the majority". You stated that you believed that you had gotten the information from a press release of some kind.

MR. McCONNELL: What page was that?

MR. KAYSER: That was on page 95, and I think it runs over to 96.

Q. In the January 1962 report, which is six months earlier, and is Plaintiff's Deposition Exhibit No. 19 for identification, you referred to Zenith as follows, first on page 14—

MR. McCONNELL: Now, I object to the characterisation "you". If you mean his company, all right. He did not write this report.

MR. KAYSER: All right.

Q. The Economist Intelligence Unit Limited referred to Zenith as follows on page 14, and I quote: "At least one foreign firm will enter the British market if the 625 line system is adopted. Zenith, the U.S. manufacturers, have announced their intention of adding television sets to the range of radio equipment which is already marketed for them in the U.K. by the United Mercantile Company". Over on the next page, page 15, it says, and I quote: "Pye, the leading advocate of the 625 line system, claim that they would be able to export far more television sets as the adoption of 625 lines would bring the U.K. into line with most European countries and the U.S.A. This would also open up the U.K. market to foreign competition—indeed, as was mentioned above, Zenith, the U.S. firm, have already announced their intention of entering the U.K. market if

the 625 line system is adopted. Despite the opposition of the major part of the industry, it is widely believed at the moment that the 625 line system will be recommended by the Pilkington Committee". Do you know, had Zenith made a prior announcement relative to its intent to enter the U.K. market if the 625 line system came in?

MR. McCONNELL: I object to that, unless he was present when some announcement was made.

MR. KAYSER: Do you know the basis for the statement in the January 1962 report that Zenith would enter the British market if the 625 line system was adopted?

MR. McCONNELL: I object to what he says about the source as hearsay.

A. It can only have been from either a press release or a published announcement of some kind.

MR. KAYSER: Do you know what the condition of the television industry—and I am speaking of the production and sales of sets—was in the middle of 1960 here in the United Kingdom?

A. No, I do not know, not exactly.

MR. McCONNELL: I do not know how anybody can answer that question, "condition of the industry". Nobody knows what you are talking about. It is an unintelligible question.

MR. KAYSER: I call your attention to Zenith Deposition Exhibit No. 13 for identification, which was the July 1960 report on television sets. You state at page 17—

MR. McCONNELL: I object to the use of the word "you". This man did not write the report.

MR. KAYSER: I believe he stated that it was written under his supervision and that he was responsible for it.

MR. McCONNELL: Did he say he wrote it?

MR. KAYSER: You state on page 17—

161 MR. McCONNELL: I object.

MR. KAYSER: All right.

Q. The Intelligence Unit states on page 17: "By far the greater proportion of television receivers are distributed from the manufacturers direct to retail outlets. This tendency to by-pass the wholesaler has become widespread in the trade, especially among the larger manufacturers who can afford to control a distribution system of their own". Do you know the reason for the tendency to by-pass the wholesaler and sell directly to retail outlets?

MR. McCONNELL: I object to that. He is not writing this report. I object to cross-examining on somebody else's theory about it.

MR. KAYSER: I am asking him if he knows.

MR. McCONNELL: Same objection.

A. The manufacturers of consumer durables as a whole have tended to move into direct relationship with the retailer. This is universal. As they aim to make a profit, presumably it is to their advantage.

MR. KAYSER: Do you mean there is a cost saving involved to the manufacturer?

A. Presumably.

Q. The Unit states at page 18: "Renting, in view of the advantage it has over hire purchase in terms of credit restrictions, has become a very profitable means of outlet for both retailers and manufacturers. It is believed that 50 per cent of one manufacturer's sets are installed in homes on a rental basis. This particular firm clearly believes that the increasing competition likely in the 1960's will place

162 manufacturers who have direct links with rental groups in an advantageous position. The percentage of rentals of total sales is not known exactly, but it is estimated to be more than 35 per cent. The high cost of service and maintenance makes rental relatively attractive to the con-

sumer, especially as there is a possibility that in 1964 present sets will become outmoded". Can you state whether or not, subsequent to July 1960, the use of rental as a means of distribution of sets increased?

A. Yes.

Q. I call your attention to another statement in the Intelligence Unit report for July 1960 at page 18, which reads: "At present the majority of manufacturers conform to a standard rate of discount of 30 per cent to their retailers. They also allow concession rates of not more than 5 per cent to large buyers—multiple stores and retailers controlling between 10 and 20 shops—as well as additional discounts for early settlement. These normally amount to 3¾ per cent for payment within seven days and 2½% per cent for payment within a month. Some allowance is also made for off season ordering; retailers are given a period of ninety days in which to pay as against one month in the peak period. One firm, Sobell, McMichael, recently raised its discount to 33⅓ per cent, bringing television sets into line with radios. Other manufacturers appear to resent this move, which also alters the wholesale price, and attribute it to Radio and Allied's desire to do more business through the independent dealers". Is it a fact that dur-
163 ing this period the amount of discount given to retailers was increasing?

MR. McCONNELL: I object to that. It does not say any such thing.

MR. KAYSER: I am asking him if it was a fact.

A. It would appear from what you have read, Mr. Kayser, that this was an exception.

Q. On page 21 of the same report, under the heading "Supply", the report says in part: "No published figures are available to cover sales and rentals to the eventual customer, but well informed trade sources estimate that a total of 2.5 million sets were actually sold or rented to cus-

tomers in 1959. It thus appears that even in that boom year there was a considerable over-supply. Manufacturers' stocks were swollen by some 50,000 sets; those of distributors by about 250,000 sets. The imbalance of supply and sales worsened in the first quarter of 1960 when production exceeded manufacturers' deliveries by as much as 227,800 sets". Then later on: "The industry is clearly going through a difficult phase at present, and the process of cutting back supply to bring it into line with demand will have to continue. Moreover, with the greater publicity being given to the probable adoption of the 625 line system, consumers will have an added incentive to delay replacing their sets, which will tend further to depress demand. Despite this, the industry is confident that sales will settle down at about the 2 million a year mark, and looks forward to a revival of sales in the autumn following the National Radio Show". Do you know whether, as a matter of fact, the 2 million sets per year level was achieved?

A. It will be probably in a subsequent report, 1961
164 or 1962. This was, I think, a very accurate appreciation of the situation when this report was written.

Q. In other words, you do not know at this point what level the market achieved?

A. I have not got all these figures in my mind, I am afraid.

Q. These reports we have been talking about were prepared in the regular course of business for the Intelligence Unit; is that correct?

A. That is correct.

Q. And are believed by you to have been accurate?

A. They were accurate. They were a good judgment of the situation as it was seen at the time they were written. What you have just been reading out was a question of forecasting; not a statement of fact.

Q. As concerns the statements of fact that are in there, you believe those to have been carefully compiled?

A. Without question.

Q. I want to turn to the July 1961 report, which is Plaintiff's Deposition Exhibit No. 18 for identification, and refer to a paragraph starting at the bottom of page iii and running to the top of iv, where the report says: "Although production is still running well below capacity, conditions have improved slightly in the television industry in the last six months. The clearance of accumulated stocks of 17 inch sets is now well in progress, chiefly as a result of widespread price-cutting on these sets. Retail price maintenance on 17 inch sets has virtually collapsed as manufacturers, with two exceptions, have reduced their trade prices, 165 leaving retail prices unchanged, and dealers have had to resort to various types of concealed price-cutting in order to clear their stocks". Do you know the reason for the price-cutting referred to in the paragraph I have just read?

A. It is normal retail practice when you have an accumulation of stock.

Q. You mean over-supply?

A. Not necessarily over-supply. That is a different question, if I may say so. You say, what is the reason for price cutting? The answer to that is that any retailer or group of retailers who have got an accumulation of stocks normally cut prices in order to make room, largely for next year's production, the same as in any sale period.

166 Q. Now, continuing the next paragraph on page iv, the report says: "The problems of a saturated market and surplus capacity have led to further rationalisation in the industry, with amalgamations of set manufacturers and also of suppliers of equipment. Production was severely cut back in the early months of 1961, when output for January-March was the lowest total recorded for any equip-

ment since April-June, 1953". Was there then in July 1961 a saturated market as concerns television sets?

A. The reports says so.

Q. What do you mean by "saturated market"?

A. The relationship between new sales and replacement sales is equal or negative.

Q. Could you explain that a bit further?

A. Do you really want me to?

Q. Yes, please.

A. In assessing the market for any consumer durable, there are two things which are essential to do. First of all, you establish what the total existing stock in the consumers' hands is. Secondly, you relate that stock to the known number of family units, which are considered, in relation to the average income of this country or any country, capable of purchasing a television set on the terms of purchase existing at that moment of time. That is two things. You then work out the average scrappage rate for each type of set or other consumer durable which you have under consideration.

Q. Average scrappage?

167 A. That is the rate at which they are disposed of, how many years people will keep them. That gives you a mathematical formula from which you can work out—given certain assumptions, mathematical assumptions—the rate at which sets will be replaced. It will also give you, as a residual figure, the amount of new sets—that is, non-replacement sets—which can be sold in that year. That is the explanation.

Q. Now, in your conclusions on that same page iv—

MR. McCONNELL: I object to the characterisation.

MR. KAYSER: Understand, Mr. Mills, I am referring to the Economist Intelligence Unit Report. In the conclusions on page iv it says: "A feeling of pessimism about the economic situation seems likely to lead to a postponement

of buying, and the outlook for the television industry during the next six months does not look very bright. Manufacturers of rental sets should benefit from the tendency toward renting rather than buying sets, which is expected to strengthen a speculation about colour television and the change on line standard likely to make people reluctant to purchase a set which may shortly become obsolete. Productive capacity still exceeds estimated demand by nearly 1,000,000 sets a year, and the next six months is likely to see the disposal or diversion of part of this capacity to other uses". Then the Intelligence Unit found, as the result of these factors that you have referred to, and referred to in this report, that the productive capacity exceeded the estimated demand by 1,000,000 sets per year as of July 1961.

168 MR. McCONNELL: I object to that. What they found is in the report, I assume. I do not think the witness can add anything to it.

A. The report states that to be so, and I have told you before how the reports are prepared. But we are dealing with forecasts here, not a statement of fact.

MR. KAYSER: Then, in line with that point, I call your attention to page 14 out of the same report, under the heading "The structure of the industry", where it is stated: "The production of television sets is still running well below capacity. The trade sources believe that the worst of the recession has now passed". In other words, the Intelligence Unit at that time believed that the television industry was in a recession?

A. It was believed it was running at below capacity.

Q. And in a recession?

A. No. A recession implies a continuing decline, which is exactly the opposite of what is stated here.

Q. You are pointing out that it states here that it is believed the recession is passing?

A. Yes.

Q. Now, you testified, I believe—and correct me if this is not a correct statement—that the matters to be considered in evaluating a potential market were (1) the total sets out among consumers, namely, the total sets in use; (2) the number of households which can afford to buy a television set; and (3) the average scrappage rate of T.V. sets.

MR. McCONNELL: He did not testify to any such 169 thing, or anything remotely resembling that. It does not even remotely resemble it.

A. You asked me to define what we meant by "saturation", and that is what I did.

MR. KAYSER: And these are the factors to be considered in that?

A. In defining what is meant by "saturation", certainly; but that is nothing to do with defining a potential market, or only one aspect of it.

MR. McCONNELL: I think that is a very clear indication of the fairness of this cross-examination; the unfairness, rather.

MR. KAYSER: Do you know what the total number of television sets were in use in England in June 1959?

A. Not off-hand.

Q. Do you know, in June 1959, what the number of households were in the United Kingdom which could afford to buy a television set?

A. About 10,000,000.

Q. 10,000,000 householders that could afford to buy a set?

A. Yes, could.

Q. These were the number of households who did not have a television set?

A. No.

MR. McCONNELL: That was not the question asked. Why don't you be fair with the witness? You ask him

whether or not there were these number of families who could afford, and then you twist it around into something entirely different and try to make him agree to the assumption in your question. I object to this form of cross-examination.

MR. KAYSER: What did you mean, Mr. Mills, by
170 the reference to households who could afford to buy a television set?

A. That is those who had sufficient income to be able to buy a television set.

Q. Without regard to whether or not they had one there?

A. Quite so.

Q. Do you know what the average period of scrappage for T.V. sets was in June 1959?

A. No.

MR. McCONNELL: If there was such a thing.

THE WITNESS: It is a very difficult thing.

MR. KAYSER: Now, on page 15 of this same report, the report states: "The stock situation which was worrying the industry at the end of the year has been eased by the higher sales resulting from open and concealed price reductions. Stocks are at present estimated at around three-quarters of a million sets, which are distributed between dealers who are believed to hold some 400,000 sets and manufacturers with some 350,000. In addition to price cutting, the stock position has been eased by the increased volume of rentals. The imposition of credit restrictions, with a 20 per cent deposit, automatically reduced sales and tended to deflect potential customers towards renting sets, for which a smaller deposit, comprising three months rent, is required. An additional factor influencing the choice between purchasing and renting a set is the fear in the minds of the public that television sets purchased now may become obsolete before their normal life-span of five or six years
171 has elapsed. These fears have been aroused by the re-

cent publicity given by the evidence placed before the Pilkington Committee on the future of television and by the general controversy in the industry over line standards, a third channel and colour transmissions". Do you know the extent to which television sets were being rented in July 1961 other than sold to the consumer?

A. Much the same figure as the previous estimate, I would say; possibly slightly higher.

Q. I see they talk here about a normal life-span of five or six years. Is that the same thing as the scrappage which you have referred to?

A. Yes, very unsophisticated, if I may say so, a very unsophisticated statement about scrappage.

Q. I refer to page 17 of this same report, under the heading "Distribution". It says: "The distribution system has been relatively unchanged during the last six months, although resale price maintenance has suffered considerably. Most retailers are now offering 17-inch sets at cut prices, either openly or in concealed forms which still pay lip service to resale price maintenance"; and later on it says: "Retailers have been unable to sell sets at the original prices and have resorted to attracting customers by offering various forms of discounts. The most common form of concealed price cutting is the offer of an inflated trade-in allowance on secondhand sets, and some cases have been reported of dealers providing a used set if the customer does not already own one". Is this condition of the market a reflection of an over-supply?

172 A. I think we must take the quotation as it stands, Mr. Counsel, if I may. What it indicates is what it states; an accumulation of stocks largely at the retail level.

Q. Over on page 16, the report states: "It is reported from trade sources that the new 19-inch set is not selling in volume, as the public is at present making price the primary consideration when purchasing a television set,

and is therefore buying the cheaper 17-inch sets". Did the industry at this time come out with a 19-inch screen as a larger size?

A. They must have done.

Q. Now, I refer to Plaintiff's Deposition Exhibit 19 for identification, which is the January 1962 report of the Economist Intelligence Unit Limited. On iv, under the main heading on iii, "Summary and Conclusions", the report states: "The general economic outlook for the first six months of 1961 is not promising. This, plus the uncertainty surrounding the future of television broadcasting, will act as a depressent on the market during the first half-year. Direct sales (including H.P. sales) will be hardest hit. Rental share of the market should continue to increase". I ask you: Is that possibly a typo? Should not that be "the first six months of 1962"?

A. I am sure it should. In fact, I was going to draw your attention to it.

Q. Then we go on with the report: "A general upturn in the economy is expected during the second half of the year, and by then the Pilkington Committee's recom-
173 mendations will be known and possibly also the Government's decisions on the report. This should give added impetus to the upturn, though it should be emphasised that there seems to be little prospect of the industry working at its present capacity by the year end". Did the report come out during 1962, the Pilkington Report?

A. I think so. I am not quite sure. It must have been very close to that. It may have been early 1963. I am doubtful because Government Reports are always inclined to be later than one expects, but it was certainly round that time.

Q. Did the issue of the report give any impetus to the market?

A. Not with immediate effect.

Q. On page 16 of this same report it states in part: "Recently too there has been a rapid growth in rental television services, often on a small scale, where individual retailers have begun their own rental services, in order to earn some return on the capital tied up in unsaleable stocks. Of all T.V. sets in use in 1956, only about 2 per cent were rented. By 1959, the figure was 6 per cent, and by the beginning of 1961 it had risen to nearly 14 per cent. During 1961, trade sources estimate that as many as two thirds of all new sets obtained were rented; and, if this is the case, it means that over 20 per cent of the television sets are now held on rental". Do you know whether the increase in rental continued beyond January 1962?

A. Yes, it did.

Q. Do you know the extent to which it went?

A. No.

174 Q. I call your attention to page 20 of the January 1962 report, which is headed "Production and Supply of Television Sets", and ask you as to the source of the statistics shown there.

A. This is almost certainly figures from one of the Associations in the electrical industry. I am rather surprised the source is not given. Alternatively, it might be a combination of figures obtained from manufacturers or Trade Associations with a cross-check on retail sales; either one or the other.

Q. But the information is believed to be reliable?

A. Very; in total.

Q. I refer to Plaintiff's Deposition Exhibit 20 for identification, which is the July 1962 report, headed "Television Sets, by The Economist Intelligence Unit". On page 17, under the heading "The Structure of the Industry", reference is made to the five main groups of marketing television sets through retailers, and says: "These companies produce nearly all the sets sold or hired out by retail shops, and in

addition manufacture many of the sets supplied by rental and relay companies. Three of them have either set up, or acquired holdings in, such companies in order to assure themselves of a share in this growing outlet. The largest companies in each of these fields, however, Rediffusion in relay and Radio Rentals in rental, manufacture their own sets. Radio Rentals also sell their sets under the Baird trade mark and have a chain of retail shops, and most of the other relay and rental companies have sets made to their own specifications, to which they attach their own trade marks, rather than those of the manufacturers. An exception is Multi-Signals, the third largest relay company, whose system only requires a small installation in an ordinary set". What is the explanation for the rental companies having the sets made to their own specifications?

MR. McCONNELL: I object to him testifying as to what some manufacturers' reason was for doing something.

MR. KAYSER: If he knows by reason of the research.

MR. McCONNELL: How would he know, except by hearsay? I object to it.

MR. KAYSER: Can you answer that?

A. It is for the same reason as chains of departmental stores and supermarkets have goods manufactured under contract, own name. It can be advantageous; it cannot be advantageous, depending on the circumstances.

Q. I read from page 20 of the same report, where it says: "The preference for renting rather than outright purchase has continued in recent months, as a result of the uncertainty about line definition and colour television. No reliable figures are available, but it is estimated as a result of discussions with the Retail Trade Association and recent Press comment that the present market for television sets, relay sets being excluded, is divided as follows: 25 per cent sold by retailers, 30 per cent hired out by retailers, and 45 per cent hired out by rental companies".

MR. McCONNELL: What page is that?

MR. KAYSER: 20. "In the continuing uncertainty, the proportion of the market held by rental sector can be expected to remain high". Do you know what portion of
176 the television sets were rented during the period after July 1962 to May 1963?

A. Certainly not less.

Q. Possibly more?

A. Possibly more; certainly not less.

Q. Also, on the same page 20, it says: "Retail discounts have been rising recently. 33⅓ per cent is now standard, instead of 30 per cent, and some manufacturers, such as Radio and Allied Industries, Dynatron, R.G.T. and Kolster-Brandes, offer more". As the retail discount increases, does that mean that the manufacturer gets less for the set?

A. Yes.

Q. The increase in the retail discount increases the margin which the retailer receives; is that right?

A. You must be careful in your definitions here, or what you mean by the word "discount". We in the E.I.U. prefer to use the word "mark-up", because it has less ambiguity about it. A discount, in the term which I think you mean, Mr. Counsel, is the difference between the ex-factory price and the price as sold at the retail level. That is really a mark-up. The other discount to which you have been referring earlier and which I think one must clarify a little is the discount on the retail price which the retailer himself gives when he is over-stocked.

Q. That is the discount which he gives to his customer?

A. That is right. But they are very different things. The second has no effect on the manufacturer's receipts
177 at all. That is the discount given by the retailer. Any increase in the mark-up may or may not have an effect on the manufacturer's receipts. I am sorry to go on so long, but you asked a very difficult question. Supposing,

for example, your ex-factory price is £40 and your recommended retail price is £70, shall we say. The mark-up is £30 on £40. This has never actually occurred, and please don't think I am quoting any real example. One method of doing this is to say "I still want you to pay me £40, but you may sell my set for £72½". So there is no universal strictly accurate answer which I can give you. I can only say all these variations exist. As far as the retailer is concerned, as long as he can sell the set, he does not mind. It enables him to give a bigger apparent discount to the customer and yet obtain the same mark-up himself. It does not affect necessarily the price received by the manufacturer. Have I made myself clear?

Q. I believe so. Am I right, then, in understanding that the retail discount refers to the discount which the retailer gets off of the manufacturer's suggested resale price?

A. This is universal. Supposing you went round to a series of shops in London now, and the recommended prices might vary by all sorts of figures, they would be recommended prices which are published, but not enforceable by law, or not necessarily so. The retailer could say to you: "Right. Have you got an old set? I will give you £15 for it", knowing very well it was in fact only worth £12. Therefore, he has given you a discount of £3 on the set, whatever the value of the set may be. But if the man-
178 ufacturer in the meantime has permitted him to increase his recommended price, as far as the manufacturer and the retailer are concerned, neither has lost anything. But this is normal business practice, I am afraid.

Q. But the retailer's discount is based on the recommended resale price?

A. You are right. He cannot give a discount on a non-existent price.

MR. KAYSER: I would like to have the reporter mark for identification as Plaintiff's Deposition Exhibit 26 this

volume headed "Durable Consumer Goods, No. 9, July 1962, Radios, Radiograms and Record Players", shown as having been prepared by the Economist Intelligence Unit Limited in association with the British Market Research Bureau Limited; and to mark as Plaintiff's Deposition Exhibit 27 this volume dated December 1964, "Retail Business Survey, Radios", shown as having been prepared by the Economist Intelligence Unit Limited.

MR. McCONNELL: Mr. Commissioner, it is perfectly apparent that we are not going to get through by 4 o'clock with this witness. So I think, if I may have a short recess, I will go and tell him he can go home and come back in the morning.

MR. KAYSER: I will finish by 4.

MR. McCONNELL: Well, I have Redirect.

(*A short recess was taken*)

("Durable Consumer Goods, No. 9, July 1962", marked "Plaintiff's Deposition Exhibit No. 26 for identification").

("Retail Business Survey, Radios" marked Plaintiff's Deposition Exhibit No. 27 for identification").

179 MR. KAYSER: I hand the witness Plaintiff's Deposition Exhibit No. 26, which is the July 1962 issue on radios, radiograms and record players, and ask him if he can identify that volume.

A. Yes; it is a standard six-monthly report.

Q. Put out by the Economist Intelligence Unit?

A. Yes, in the normal course of business.

Q. The material is compiled similarly to the method you described in connection with your six-months television reports

A. Exactly the same.

Q. When did you start publishing the report on radios, radiograms and record players?

A. Almost certainly exactly simultaneously.

Q. With the television reports?

A. Yes.

Q. And are the radio reports still being published?

A. No.

Q. When were those discontinued?

A. At the same time as the television ones, I am sure.

Q. What was the distribution or circulation of the radio reports?

A. Very similar.

Q. To manufacturers?

A. To manufacturers, yes.

Q. In the United Kingdom?

A. Yes, almost entirely.

Q. Were some reports sent outside the United Kingdom?

A. Not to my recollection.

180 Q. I refer to page iv of this report, which is under the heading "Summary and Conclusions" which appears at the top of page iii. It says: "The production of radio equipment has continued at a higher level than it was a year earlier. Imports have risen very rapidly, overtaking exports which are still falling. The boom in sales is confined to radios. Deliveries of radiograms have now resumed their decline". Do you recall the source of the imports which were rising, as it says here, very rapidly in July 1962?

A. No, I do not.

Q. On page 20 of the same report, under the heading "Imports", it says: "The rise in imports accelerated in the second half of 1961, reaching a total of 128,700 units in the final quarter. The aggregate for the year at 301,000 units was for the first time greater than exports and came to almost 10 per cent of home production. In the first quarter of 1962, when imports are usually at their lowest, they totalled 74,200 units, or almost twice as many as in the same quarter of 1961". Do you happen to know: Were sets being

imported at that time from Japan?

A. Probably; but by reference to the annual statement for the appropriate year you would easily check on that. (Document handed to the witness). This is an extract.

Q. You are referring to what page?

A. Page 22. This gives the production and supply of various radiograms. The imports and exports would have been an extract from the Board of Trade Journal, one 181 of these blue publications, Annual Statement of Account, supplemented by the kind of approach to Her Majesty's Customs and Excise which I described earlier. This is the only accurate source of imports and exports.

Q. Does that sheet you have referred to show a country?

A. No.

Q. I show you Plaintiff's Deposition Exhibit 27 for identification and ask you if you can state what this is. (Exhibit handed to the witness).

A. This is a supplement which is produced quarterly on a selected subject.

Q. A supplement to what?

A. To our monthly publication "Retail Business".

Q. You have a monthly publication with that title?

A. Yes.

Q. Does that cover radio sales or production?

A. From time to time.

Q. And television also?

A. From time to time. It is much more a soft goods, grocery, publication really.

Q. But this work Plaintiff's Deposition Exhibit 27 was prepared in the regular course of business?

A. Yes.

Q. And from sources considered to be reliable?

A. Yes.

Q. What is its distribution?

A. About 600.

182 Q. What types of businesses or persons purchase this?

A. Advertising agencies, retail organisations, manufacturers of retail goods.

Q. I notice on a number of pages—as, for example, page 1, 2, 4 and 5—there is, in relation to statistics, a reference to BREMA as the source. Can you recall to-day as to exactly the name of that organisation?

A. British Radio and Electronic Manufacturers Association, or something very close to it.

Q. That is a Trade Association?

A. It is.

Q. Do you know what the functions of that Trade Association are?

MR. McCONNELL: I object to this witness testifying about the functions of some trade organisation.

MR. KAYSER: I will amend that—as concerns the collection of statistics.

A. They obtain returns from their members.

Q. And you obtain in turn this information from BREMA?

A. Yes.

Q. And rely on it in the preparation of your reports?

A. We do; not in total. There are other sources quoted. May I make a correction?

Q. Surely. Go ahead.

A. It is just a lapse of memory; the British Radio Equipment Manufacturers Association.

Q. That is the full name of BREMA?

A. Yes.

183 Q. Referring to this Plaintiff's Deposition Exhibit 27, on page 4 it states: "In the past eight years, sales by U.K. manufacturers have more than doubled in quantity. Exports have halved, while imports have risen 8½ times since 1960. This is shown in Table 5. In 1963, imports were

18 per cent of U.K. manufacturers' sales by value and 57 per cent by number, showing that the main strength is in the inexpensive end of the market—transistors, personal and portable radios".

MR. McCONNELL: I have not objected heretofore to the documents which have been marked here, reading them in, because some of them I have produced myself, but this document is an entirely different thing, and I am objecting to reading into the record the contents of a document which is not in evidence and obviously never can get qualified to get into evidence. We have no way of cross-examining the person who got together these figures. We do not know anything about their source. We do not know anything about the qualifications of this document, and the man is reading it right into the record. I object to this practice.

MR. KAYSER: I notice here, at Table 5, which was referred to in the quote which I just read, that there is a reference to BREMA and to the Ministry of Aviation and to H.M. Customs and Excise as the source. In other words, as you said, in addition to BREMA, you also got information from the Ministry of Aviation and Customs and Excise?

A. Yes.

* * *

198 Q. You spoke about two different line systems in cross-examination, the 405 and 625 lines. Isn't it a fact that all British manufacturers make a set with both line systems?

A. All major manufacturers.

* * *

REPORT ON THE PRODUCTION AND MARKETING OF RADIO AND TELEVISION RECEIVERS, PHONOGRAPHS AND TAPE-RECORDERS IN THE UNITED KINGDOM

THE ECONOMIST INTELLIGENCE UNIT

April, 1959

Job No. J 5143

MASTER COPY — NOT TO BE REMOVED

Report Dispatched On: 6/4/59

Client: Zenith Radio Corporation

Short Address: Chicago 39, Ill., U. S. A.

Author: T. McKitterick/LW. A2

The Economist Intelligence Unit Limited,
22, Ryder Street, London, S.W.1.

b) *Price trends*

Prices have, on the whole, been falling. Amalgamation and rationalisation of production, together with technical changes and increasing competition have kept prices down. Prices are, however, increased by the addition of purchase tax—at present 60 per cent on the wholesale price.

The following table shows changes in the wholesale prices (that is excluding purchase tax) of radios and television sets in an index form, together with the indexes of retail prices, domestic electrical appliances and all consumer spending (1949—100).

	Wholesale Prices				
	Radios	*Television Sets*	*Domestic Electrical Appliances*	*All retail prices*	*Consumer spending*
1950	n.a.	n.a.	100	103	103
1951	103	97	109	113	112
1952	103	94	116	123	118
1953	100	88	113	126	121
1954	99	85	111	129	123
1955	98	84	112	134	128
1956	89	78	112	141	134
1957	89	76	114	146	137

A very important factor in retail prices is the incidence of purchase tax (at present 60 per cent) and the possibility of the rate being either raised or lowered which, when an increase is expected, leads to a rush of purchases, and an expected fall to a considerable reduction in sales. Changes in the rates are announced periodically — usually in the Budget in April each year — by the Government, and it is not possible to predict them. In the present economic climate, however, any increase in purchase tax seems very unlikely, and it is thought that the rates will—if any change is made—be reduced.

The two tables below show the purchase tax rates since 1947 and the average retail price list of television receivers since 1955. It will be noted that in spite of the tax increase in 1955, prices still fell for 14", 17" and 21" receivers which account for nearly all sales between them.

Purchase Tax Rates

(percentages of wholesale price)

Date	*Radio & TV receivers*	*Radiograms*
April 1947	33⅓%	33⅓%
November 1947	50%	50%
April 1948	66⅔%	66⅔%
June 1948	33⅓%	"
April 1951	66⅔%	"
April 1953	50%	50%
October 1955	60%	60%

Average Retail Price List of Television Receivers (incl. Purchase Tax)

Tube size	*1954* £ s d	*1955* £ s d	*1956* £ s d	*1957* £ s d	*1958* £ s d
12"	54. 0. 0.	52.10. 0.	54.10. 0.	53.10. 0.	49. 5. 0.
14"	68. 5. 0.	71. 0. 0.	67.15. 0.	61.10. 0.	60. 0. 0.
17"	86.15. 0.	89.15. 0.	80.10. 0.	75.15. 0.	73. 0. 0.
21"	—	149.10. 0.	107.15. 0.	103.10. 0.	98.10. 0.

The distribution of sales by price groups since 1954 is set out below. The figures for 1958 are for the first half of the year and show the influence of the slight recession then in progress and a trend towards the cheaper portable models.

Percentage Distribution of Sales (Retailers)

Price (excl. tax)	1954 %	1955 %	1956 %	1957 %	1958 %
Radio Receivers					
Up to £12.10.0	32	34	52	53	53
From £12.10.0 to £17.0.0	56	45	32	31	40
From £17.0.0 to £32.0.0.	11	12	11	12	5
From £22.0.0.	1	9	5	4	2
Radiograms					
Up to £40	44	37	36	27	35
Over £40 to £75	55	58	62	71	63
Over £75	1	5	2	2	2
Television Sets					
Up to £50	35	18	27	20	26
Over £50 to £75	60	75	67	77	72
Over £75	5	7	6	3	2

c) *Cabinet design and other features*

A large proportion of tape recorder, mains radio and television set cabinets in use are of wood, particularly in the case of the more expensive sets. Plastic cabinets are used for cheaper sets, increasingly for more expensive ones, and particularly for battery sets. Broadly speaking, "first sets" may be said to have wooden cabinets and secondary ones, usually smaller—and often battery operated—to have plastic or fibre cabinets.

The almost uniformly high quality of technical competence as between one company and another tends to lead to a situation where sales turn more and more on outward appearance with the result that the use of plastic cabinets is on the increase; they are cheaper than wood and the considerable variations in styling and colours possible with plastics are considered to have excellent sales appeal, especially in connection with the acquisition of a "second set".

It is not expected, however, that wood will be entirely superseded by plastics, if only because wood makes for better sound reproduction and has that "luxury" look and touch which plastics lack.

Regarding the popularity of particular features in certain models, it cannot be said that they are a great factor prior to a prospective buyer entering a shop. The public is, on the whole, and with the exception of enthusiasts, extremely ignorant of developments in the radio and television fields and only once in the sales room does the public take an interest in particular features—e.g. transistors in battery sets and VHF reception. Broadly speaking, the two factors which affect sales most are price and visual aspect considerations, neither of which can be particularised.

• • •

As will be seen in the above tables, ownership of radio goods is in the order radios, television sets, radiograms/record players and tape recorders, and saturation or near saturation has been reached in radios and television sets.

• • •

(iii) *Line definitions*

The present television line definition in the UK is 405. It is probable that this definition will continue to be used for some years to come on the present wavelengths. A recommendation favouring the adoption of a higher definition—625—is expected to be made by the Television Advisory Committee, and it is probable that this definition will be used in the UHF bands (Bands IV and V) when broadcasting starts in these bands, probably in the 1960's. (Colour television will, in all likelihood, also use these bands.)

• • •

DURABLE CONSUMER GOODS

1

JULY 1958

TELEVISION SETS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

DURABLE CONSUMER GOODS

A SERVICE OF ECONOMIC FORECASTING AND MARKET RESEARCH

GENERAL INTRODUCTION

This service aims to combine economic forecasting with consumer market research and with a study of trends having an influence on the supply of durable consumer goods to the United Kingdom market.

Reports are issued every six months and are divided into three parts.

The first part deals with the general economic determinants of the demand for durable consumer goods. An analysis of trends in the more general determinants such as the Gross Domestic Product is followed by an examination of a number of more particular economic determinants and finally, of consumers' expenditure on durable consumer goods. The results of this analysis are allied with the results of that part of the consumer survey concerned with consumers' income expectations and views on the timing of purchases of durable consumer goods in general. The results of the first part of the service provide a general economic forecast of the principal economic determinants of

demand over the next five years, and an assessment of the outlook for sales of all durable consumer goods over the next six months. These forecasts are designed to assist manufacturers with their longer term planning by enabling them to assess the economic climate some years ahead, and to describe the immediate economic prospects which will influence supply trends and the application in practice of the intentions expressed by those interviewed in the consumer survey.

In Part II a study is made of the supply side of the durable consumer goods industry and this part deals specifically with each item included in this service. We believe that much economic and market research concentrates too exclusively on demand trends and neglects the supply side of the equation. We have aimed to relate supply trends to the general demand trends shown in Part I, to analyse cost trends and compare them with price trends, and to bring out divergencies between design trends and what consumers' are thinking of buying.

The results of the consumer survey are set out in Part III. A full description of the design and composition of the sample forming the basis of this survey is given in Appendix A to this report. The results of the survey are very fully analysed in two sections: the first dealing with ownership and the second with intentions to purchase. In the introduction to Part III it is emphasised that the full significance and usefulness of consumers' intentions to purchase may be expected to emerge after a number of these regular surveys have been carried out.

In our conclusions the results of the three parts of the service are drawn together. The extent of ownership and consumers' intentions to purchase each item are considered in relation to the results of the economic demand and supply analyses, and an informed and reasoned forecast is made of the likely size of the market over the remainder of 1958.

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

INTRODUCTION

In this part of the service a study is made of trends in the production and the supply of television sets to the U.K. market, and of certain factors which affect this supply.

The structure of the domestic radio equipment industry is given first and this is followed by a short discussion of trends in design and development. Trends in the several items of cost are then examined in five sub-sections and summarised in a sixth. To give an accurate visual impression of proportional changes in prices a logarithmic scale has been used in the charts in the section on costs. Finally, both long term trends and short term fluctuations in production, exports, imports and supply to the U.K. home market are discussed and examined in the light of the general economic studies previously made in Part I.

1. *The Structure of the Industry*

There are some 40 main producers of radios, radiograms, record-players and television sets and, in addition, a number of smaller scale assemblers whose total output accounts for no more than about 5 per cent of the total production of these goods. In radios and radiograms it seems unlikely that any firm has much more than 10 per cent of the U.K. market, and in television the leading four or six firms account for approximately 50 per cent of the market.

The labour force engaged in the manufacture of domestic radio and T.V. equipment is probably around 100,000. Accurate estimates are impossible owing to the overlap of the domestic radio and T.V. equipment industry with so many other interests.

The number of firms in the industry has been diminishing in recent years—though not necessarily the number of trade names—as firms have felt the need to consolidate or amalgamate their interests in order to increase the volume of output and so lower unit production costs, and to meet increasing demands on their technical resources and research facilities.

There is not a great deal of vertical integration within the industry. Some firms do manufacture component parts for their own use and even distribute them to others. Most of the firms, however, are dependent to some extent upon specialist producers of components.

The degree of vertical integration considerably affects the breakdown of production costs. Component manufacturers have a large labour element in their costs of production but, at the other end of the line, the labour cost element for assemblers may be much lower.

Distribution channels vary, though in total, about 80 per cent of the output of radio and television sets are sent direct to dealers and only 20 per cent are distributed through wholesalers.

2. *Trends in Design*

Opinion in the industry appears to be divided as to whether a 625 line picture system should be substituted in this country instead of the current 450 line system—perhaps on the introduction of a colour service—to conform with the majority of foreign services. It is felt that if production for the home market were geared to this system, the export trade might benefit considerably.

4. *Trends in Production, Exports, Imports and Supply*

(a) *1946-1957*

(i) *Production*

U.K. production of television sets has advanced very rapidly since the war, as may be seen from Table G. 1956 is the only year in which any setback in production was experienced, but production rose again in 1957 and was slightly in advance, in terms of numbers, of production of radios and radiograms.

The growth in the production of television sets since the end of the war was quite phenomenal, with the annual output rising from 29,000 sets in 1947 to nearly 1.9 million sets in 1957. As would be expected, the rate of advance was greatest in the earlier years and has tended to tail off recently, but there was quite a sharp increase in 1955 when production was 43 per cent higher than in the previous year. During 1955, however, production ran ahead of sales, and both manufacturers' and retailers' stocks were at very high levels by the end of the year. As a result, production fell back in 1956, and this was aggravated by the effects of the credit squeeze on home sales during the year. Nevertheless, although the production of television sets, at 1.5 million in 1956, was 18 per cent below that of 1955, it was still the second best year to date. Output rose again in 1957, however, and at 1.9 million sets was nearly 30 per cent higher than the previous peak in 1955.

* * *

(iii) *Imports*

Imports of television sets into the U.K. in recent years have been of little importance. This was probably due in part to the different line system in use in the U.K., and to the technical advantages enjoyed by British manufacturers.

* * *

DURABLE CONSUMER GOODS

2

JANUARY 1959

TELEVISION SETS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

• • •

1. *The Structure of the Industry*

The production of television sets seems to be becoming increasingly concentrated in a few large companies. Intense competition, with contracting profit margins, has given a real advantage to manufacturers with large-scale production methods, who, for example, use devices such as printed circuits which are only really economic when there is a long production run. This has led to a reduction in the number of firms, but not necessarily the number of trade names, in the television industry over the last few years. English Electric, for example, stopped making television sets at the end of 1956—and the process is expected to continue.

At the present time, probably half the total output of television sets in the U.K. is controlled by six companies—Bush, Ekco, Thorn Electrical Industries, Murphy, Philips and Pye.

Thorn now controls the "His Master's Voice" and Mar-

coniphone trade marks through its 51 per cent holding of the issued share capital of the British Radio Corporation. This private company was set up in June 1957, to manufacture for the domestic market the radios, radiograms and television receivers formerly produced by Electric and Musical Industries and Thorn separately. Thorn appoints four directors while E.M.I., which holds the other 49 per cent of the ordinary share capital, appoints three directors.

* * *

4. *Trends in Production, Exports, Imports and Supply*

* * *

(iii) *Imports*

Imports of television sets into the U.K. are of very little significance. This is in part due to the different line system in use in the U.K., but also reflects the strongly entrenched position of the home industry.

* * *

(iv) *Supply*

* * *

There is a definite trend towards cheaper television sets. The average retail list price (including purchase tax) of home disposals by manufacturers of television receivers has fallen steadily since 1955. In December 1955 the average price of a 14" model was £71.0.0 and of a 21" model £149.10.0. In December 1956 the figures were £67.15.0 and £107.15.0; in December 1957 £61.10.0 and £103.10.0 and in June 1958 £60 and £98.10.0 respectively. This trend is likely to be reinforced by competition within the industry as well as technical improvements.

* * *

DURABLE CONSUMER GOODS

4

JANUARY 1960

TELEVISION SETS

E. I. U.

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

• • •

1. *Structure of the Industry*

During the last six months many small assemblers and distributors have continued to enter the industry, but no major changes have taken place among the main manufacturing groups.

• • •

Increasing attention is being paid by manufacturers to distribution, and the share of the total radio and T.V. trade which passes through the hands of wholesalers is now 15 per cent and is tending to fall lower. Large manufacturers are developing their own distribution facilities, and can therefore afford to save the extra discount to the wholesaler. The number of dealers who are appointed agents to a manufacturer is rising, which appears to be due to the fact that manufacturers are becoming more concerned with the quality of repair services and replacement salesmanship.

A major development in the field of distribution was the Firth Cleveland group's acquisition of Broadmead, a private company controlling 300 shops. This makes Firth Cleveland the largest radio retailing organisation in the country, controlling some 500 shops and stores.

• • •

It seems likely that wired T.V. systems will develop further, not only because of the advantages they offer to subscribers, but also because owners of rental services should soon become aware of the dangers of their position if, as seems very probable, the new Broadcasting Acts in 1962/3 make a 625 line channel possible. The wired system, it is claimed, could carry either colour T.V. or 625 line transmissions with little or no adaptation.

• • •

There have been various indications of future trends. Philco have introduced a transistor battery portable T.V. —"The Safari"— in the U.S.; it has an 80 square inch picture and can be used out of doors. The Americans predict that live T.V. will be broadcast across the Atlantic in two years' time. Further regrets have been expressed that the government has taken no action over the introduction of the 625 line picture. Pye has pointed out that it will not be possible to build up exports until there is a home market for these sets. There have been more examples of the installation of closed circuit T.V. for business purposes.

• • •

4. *Trends in Production, Exports, Imports and Supply*

(i) *Production*

The boom in production and sales which began with the removal of hire purchase restrictions in the autumn of 1958 has swelled in 1959. Although the production figure for the last quarter of 1958 was not reached again in any of the first

three quarters of 1959, the three totals for these periods passed the corresponding totals for 1958 by respectively 20, 57 and 60 per cent. From the very high third quarter figure it seems most probable that this level of production was maintained in the fourth quarter. Production in October reached a peak of 328,700 units which was 39.3 per cent higher than a year earlier.

The million mark had never before been passed by June, and a record total of 2.5 million is estimated for the year 1959 as a whole. This would be 20 per cent higher than the 1958 record. This compares with the B.R.E.M.A.'s figures of net deliveries by manufacturers to the home trade between January and November which were in fact 41 per cent higher than their estimates for the corresponding period of 1958.

(iii) *Imports*

Imports of television sets are still too small to be shown separately in the trade figures. They represent a negligible proportion of total supply to the U.K. market. Some components are imported, and cabinets in the more modern designs have been coming recently from Scandinavia.

(iv) *Supply*

Sales of television sets have been very high and rising throughout the year, although an unexpected fall appears to have taken place in the last quarter. The B.R.E.M.A.'s figures of manufacturers' deliveries show that after reaching a peak level of 389,400 in October they fell by 55,400 in November to 334,000, which was 11,000 less than in November 1958. Stocks rose by about 132,000 during the second quarter, but fell again by 76,000 during the third and by nearly 63,000 in October. Production and sales have never been so consistently high, and the turnover of the industry is expected to be a record £159 million, an 18 per cent

increase on 1958. Nevertheless manufacturers, fearing that the market is approaching saturation point, have been urging each other to aim at quality rather than quantity in their production policies, and have been paying greater attention to the standards of their dealers with this in mind. According to some manufacturers all sets should now be made to last at least two years without needing attention. It is certain that even if the market is not saturated, competition is going to become much stiffer, and that replacement buying will be of the greatest importance. At the moment replacement buying indicates a total seven or eight year life per set.

Early replacement is being encouraged by a number of part-exchange arrangements offered to the public, or refurbishing services between manufacturers and rental firms. Some dealers are in fact offering new sets in part exchange when they can only destroy the old one. Pressure on the public to change to modern designs, and particularly to the 21" set, is increasing.

Prices have continued to fall slightly. Over half of total television sales are made on H.P. at the moment. Pye and Invicta have introduced four-year H.P. agreements, which include full maintenance. In view of the possibility of the introduction of the 625 line system, dealers are expected to turn sooner or later to the four-year H.P. agreements or to join wired T.V. systems rather than to increase the amount of their rental services. The number of subscribers to wired T.V. had grown rapidly recently; the relay system is cheap and gives good reception in normally bad areas.

• • •

DURABLE CONSUMER GOODS

5

JULY 1960

TELEVISION SETS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

DURABLE CONSUMER GOODS

A Service of Economic Forecasting and Market Research

• • •

SUMMARY AND CONCLUSIONS

• • •

PART II

Even during 1959, when total sales and rentals of new television sets reached an estimated 2.5 million, both production and supply were considerably in excess of total demand. The position worsened during the early months of 1960 despite cutbacks in production, and total stocks of unsold sets are now estimated at about 1 million—approximately half with the manufacturers and half with the retailers. Although all sectors of the industry look to a seasonal recovery in sales in the remainder of 1960 the large number of unsold sets in the pipeline will prevent the recovery from having an equal effect on output. Production is, therefore, likely to remain considerably below capacity (estimated at nearly 3 million sets a year) during the coming months.

PART III

The ownership of television sets is seen to have risen sharply since October 1959, and now some 74 per cent of

households own or rent sets. Replacement demand now accounts for 49 per cent of new sales of television sets and the practice of renting sets is of considerable importance. The survey did not indicate any marked reduction in the proportion of persons intending to purchase television sets compared with six months earlier, though the result would perhaps have been less favourable if the entire fieldwork had been completed after the imposition of the hire purchase restrictions. In spite of this reservation, the results clearly give reason for expecting at least a seasonal revival in sales in the coming months, and the practice of renting sets is not likely to be seriously affected by the new restrictions.

Conclusions

The ownership of television or rediffusion sets has now reached very high proportions, and some decline in sales from the record level of 1959 was clearly inevitable—trade estimates put sales (including rentals) at about the 2 million mark this year. The situation was made worse, however, by over production, which led to a build-up in stocks of massive proportions. Although a seasonal recovery in sales is expected—and may be intensified by price cutting—this will not, therefore, be reflected to an equal extent in manufacturers' deliveries, which are likely to run well below the 1959 levels during the remainder of 1960. Even so, the industry will probably start 1961 with uncomfortably high stocks so that deliveries are likely to remain somewhat depressed during the first half of 1961.

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

• • •

1. *The Structure of the Industry*

There have been few changes of importance in the structure of the domestic television industry in the last six months. There are still under 20 manufacturers of significance, and five of these continue to account for over half the total output of sets. These five are the British Radio Corporation (the Thorn E.M.I. joint subsidiary which manufactures under the Ferguson, Champion, Philco, Marconiphone, and H.M.V. trade marks), E. K. Cole Ltd (which owns the Ferranti television trade mark), Bush Radio Ltd. (part of the Rank Organisation), Philips Electrical Ltd. (which owns the Cossor television trade-mark), and Pye Ltd. (which owns Pam Ltd.). Radio and Allied Industries (Sobell and McMichael) have been growing in importance; and Murphy Radio, Ultra Electric (Holdings), and Kolster-Brandes (a subsidiary of Standard Telephones and Cables Ltd.) are other firms with significant shares of the U.K. market. Plessey Ltd. is also an important manufacturer—at one time it was reputed to be the largest in Europe—but its output is all contracted to other firms and it does not market any sets under its own name.

There has been no indication of expansionary plans from set manufacturers—not surprisingly in view of the general outlook regarding the supply and demand position. However, G.E.C.'s programme of mechanisation has resulted in a marked increase in productive capacity, and a large saving in factory space. Also, Thorn recently acquired the "Brimar" valve and tube division of Standard Telephone and Cables, and will make some, if not all, of its cathode ray tubes in future. Among tube makers Mullards, at their Simonstone factory near Burnley, have reached a production rate of 1.5 million tubes per annum.

The importance which set manufacturers place on rentals as an outlet for their models was given emphasis in April when Ultra Electric (Holdings) Ltd. acquired all the share

capital of Radio and Television Renters (Holdings) Ltd., in which it previously had a minority interest.

* * *

3. *Distribution*

By far the greater proportion of television receivers are distributed from the manufacturers direct to retail outlets. This tendency to by-pass the wholesaler has become widespread in the trade, especially among the larger manufacturers who can afford to control a distribution system of their own. Manufacturers interviewed differed in their views on door-to-door selling which has become so important in some branches of the durable consumer goods industry. One company, at present distributing solely through retailers, admitted to being in favour of applying these methods in a concentrated market area. Others, however, maintained that a television set was too complicated a piece of electronic equipment to be adapted to door-to-door selling. The majority of manufacturers do not maintain regional depots, but supply their dealers straight from the factory.

The main retail outlets for manufacturers are the independent shops and multiple stores. Only a very small percentage of sets passes through the major departmental stores. There are five large groups of multiple stores, with about 1,000 to 1,200 shops as against over 12,000 independent shops selling television sets. Most manufacturers divide their supplies in the ratio of 75 per cent to 25 per cent in order to keep a balance within the trade. Mail order business is negligible.

In some areas a high-powered door-to-door campaign is already being carried out and it is possible that this is the beginning of a campaign designed to cover the whole country. These sets are obtained from local wholesalers at an extra 7½ per cent discount, against an order of fifty or

more sets, and are offered to the public at reasonable terms. Most manufacturers consider that lack of servicing arrangements will jeopardise public support for the schemes.

Renting, in view of the advantage it has over hire purchase in times of credit restrictions, has become a very profitable means of outlet for both retailers and manufacturers. It is believed that 50 per cent of one manufacturer's sets are installed in homes on a rental basis. This particular firm clearly believes that the increasing competition likely in the 1960's will place manufacturers who have direct links with rental groups in an advantageous position. The percentage of rentals of total sales is not known exactly but it is estimated to be more than 35 per cent. The high cost of service and maintenance makes rental relatively attractive to the consumer especially as there is a possibility that in 1964 present sets will become outmoded.

Although retailers have entered the rental field they have not the facilities for storage or the capital to compete with the big rental firms. In March, 1960, however, D. Everard's Ltd. rental subsidiary offered to supply dealers with 17-inch sets which they could rent to customers at 9/9 a week, thus enabling them to compete with local rental companies. Furthermore it is understood that some manufacturers are offering to support retailers' rental schemes.

Most manufacturers anticipate the coming of discount trading, if not the actual abolition of resale price maintenance, very soon; in fact there is evidence of barely disguised price cutting by both manufacturers and retailers already. The rapid growth of discount houses in the United States has, in many cases, ruined the small retailer though it has not harmed the manufacturer.

At present the majority of manufacturers conform to a standard rate of discount of 30 per cent to their retailers. They also allow concession rates of not more than 5 per cent

to large buyers—multiple stores and retailers controlling between ten and twenty shops—as well as additional discounts for early settlement. These normally amount to 3¾ per cent for payment within seven days and 2½ per cent for payment within a month. Some allowance is also made for off season ordering; retailers are given a period of ninety days in which to pay as against one month in the peak period. One firm, Sobell, McMichael, recently raised its discount rate to 33⅓ per cent, bringing television sets into line with radios. Other manufacturers appear to resent this move, which also alters the wholesale price, and attribute it to Radio and Allied's desire to do more business through the independent dealers.

* * *

5. *Trends in Production, Exports, Imports and Supply*

* * *

iii) *Imports*

Imported sets do not form a significant part of total supply to the U.K. market, and are not shown separately in trade statistics.

iv) *Supply*

Production of television sets reached a record 2,838 thousand in 1959, an increase of 43 per cent over 1958, the previous best year. 24 thousand sets were exported, leaving 2,814 thousand for the home market. Deliveries from manufacturers amounted to 2,752 thousand. No published figures are available to cover sales and rentals to the eventual customer, but well informed trade sources estimate that a total of 2.5 million sets were actually sold or rented to customers in 1959. It thus appears that even in that boom year there was considerable over-supply. Manufacturers' stocks were swollen by some 50,000 sets; those of distributors by about 250,000 sets.

The imbalance of supply and sales worsened in the first quarter of 1960, when production exceeded manufacturers' deliveries by as much as 227,800 sets. In April production was cut sharply to 185.9 thousand (against 223,600 in March and 213,800 a year earlier), but dealers, whose stock levels are estimated to be in the region of over 500,000, cut their intake to the lowest monthly level for a long while—120,900. Manufacturers' stocks thus increased further, and they are now thought to be in the region of 450,000. Provisional figures of manufacturers' home deliveries in May show that the decline continued. At 90,000 sets they were 45 per cent lower than in May 1959, and only three quarters of the previous month's total.

The industry is clearly going through a difficult phase at present, and the process of cutting back supply to bring it into line with demand will have to continue. Moreover, with the greater publicity being given to the probable adoption of the 625 line system, consumers will have an added incentive to delay replacing their sets which will tend further to depress demand. Despite this, the industry is confident that sales will settle down at about the 2 million a year mark, and looks forward to a revival of sales in the autumn following the National Radio Show. By that time the initial impact of the hire purchase restrictions should have been overcome, and the minimum down payment requirement of 20 per cent should not prevent the usual seasonal advance in sales from taking place.

• • •

ZENITH DISTRIBUTOR AGREEMENT
(Export Trade)

THIS AGREEMENT made and entered into this 2nd day of January, A.D. 1960 in the City of Chicago, County of Cook, State of Illinois, U.S.A., by and between ZENITH SALES CORPORATION, a corporation organized and existing under the laws of the State of Illinois, U.S.A. (hereinafter called the "Seller"); and United Mercantile Company Ltd., a corporation existing under the laws of .... (a sole proprietorship owned by .....) (a co-partnership consisting of .... having its principal office and place of business at Park Lodge, Park Close, in the City of London, S. W. 1 and country of England (hereinafter called "Distributor").

WITNESSETH:

Whereas Seller is engaged in the business of selling for resale the hereinafter defined merchandise manufactured and/or sold by Zenith Radio Corporation, a Delaware corporation, (hereinafter referred to as "Manufacturer"); and

Whereas Distributor desires to purchase and resell at wholesale said merchandise in the territory hereinafter mentioned, and represents that it is so organized and financially situated effectively to do so, now therefore in reliance upon such representation and in consideration of the mutual promises of the parties hereto, it is agreed as follows:

1. Definitions:
   (a) "Territory" referred to herein shall mean:
   United Kingdom of Great Britain
   and Northern Ireland
   (b) "Merchandise" referred to herein shall mean Zenith radio receivers, phonographs and high-fidelity instruments, including combinations of all the foregoing.

2. Seller agrees subject to the terms and conditions hereof to sell to Distributor such Distributor's requirements of said Zenith merchandise.

3. Prices, Terms and Discounts: Seller agrees to sell and Distributor agrees to purchase said merchandise f.o.b. Seller's office, Chicago, Illinois, or at any other original point of shipment within the United States, at Seller's prevailing export prices and discounts or its established net export prices. Terms: Cash in advance of shipment or through confirmed irrevocable Letter of Credit acceptable to Seller, payable in United States dollars.

   Distributor agrees to furnish Seller with such financial statements as may from time to time be requested by Seller. Any withholding of shipments by Seller because of the condition of Distributor's account or the financial responsibility of Distributor shall not be construed as a cancellation or breach of this agreement by Seller and the judgment of the Seller to withhold for either of such reasons shall be final and binding upon Distributor.

4. Orders—Deliveries: It is specifically understood and agreed that all orders for merchandise from Distributor are subject to acceptance by Seller and are not binding upon Seller until so accepted. Orders forwarded by Distributor to Seller are not subject to cancellation by Distributor unless Seller fails to execute such orders within a reasonable period after the receipt and acceptance thereof. Seller assumes no liability and shall not be liable to Distributor for any failure to fill or delay in filling orders for merchandise received from Distributor and accepted by Seller because of strikes, lock-outs or other labor troubles, fires, floods, accidents, unavoid-

able interruptions in the operation of Manufacturer's factory, delays in the delivery of raw materials or parts by the suppliers thereof, or any cause beyond the control of or occurring without the fault of Seller or Manufacturer, or because of Seller's or Manufacturer's total volume of orders at any time or from time to time making deliveries in full of such orders impossible or impracticable in the ordinary course of business.

5. Packing: Seller agrees to utilize standard export packing where required and such cost of standard export packing as determined by Seller shall be borne by Distributor.

6. Insurance: Seller will, unless otherwise instructed, insure all shipments for the account of Distributor under its usual policy, unless Distributor specifies other insurance coverage satisfactory to Seller, and unless because of the method and manner of packing requested by Distributor any shipment or shipments are not insurable at the usual rates.

7. Warranty: Each item of Zenith merchandise manufactured and/or sold carries a suitable Manufacturer's warranty printed in the English language against defective workmanship and material. Manufacturer includes this printed warranty with each unit of Zenith merchandise shipped.

Distributor has no authority to obligate and shall not attempt to obligate Manufacturer or Seller by issuing any warranties or guarantees on Zenith merchandise other than the warranty regularly issued by Manufacturer. Distributor agrees to deliver with each unit of merchandise the warranty regularly furnished by Man-

ufacturer and such other printed matter and materials as Manufacturer or Seller shall furnish and request.

It is understood and agreed that Manufacturer or Seller shall not be liable to Distributor for any alleged loss or damage of any kind because of patent or trademark or alleged patent or trademark infringements arising in connection with the sale and/or distribution of merchandise by Distributor.

8. Trade-marks and Trade Names: It is expressly understood that no right is hereby granted to Distributor to use the corporate name of Manufacturer or Seller or any part thereof, or any of Manufacturer's or Seller's trademarks or trade names, registered or unregistered, and Distributor agrees that he will not use said corporate name or trademarks or trade names unless and to the extent that he is specifically authorized by Manufacturer or Seller so to do. It is understood, however, that in advertising Zenith merchandise, Distributor shall have the right, during the term hereof, to indicate that he is an authorized distributor of Zenith merchandise.

Distributor agrees not to do anything whatsoever which might impair Manufacturer's or Seller's right, title or interest in or to the aforesaid corporate names, trademarks, and trade names and not to attempt to acquire any right, title, or interest therein or thereto; and Distributor further agrees at any time upon the demand of Manufacturer or Seller to disclaim and assign and transfer to Manufacturer any and all right, title, and interest therein and thereto which Distributor now has or might have, or might hereafter obtain or acquire. Upon the expiration of the term of this agreement or its termination as hereinafter provided, Distributor

agrees to immediately cease and desist from any and all use of the aforesaid corporate names, trademarks, and trade names and to immediately discontinue any and all representations, direct or implied, that he is an authorized Distributor of Zenith merchandise.

9. Duration—Termination—Repurchase: (a) This agreement shall continue and remain in force from date hereof until December 31, 1960, unless sooner terminated in any manner as hereinafter set forth.

If either party hereto shall fail to perform any of the obligations imposed upon it under the terms of this agreement irrespective of the nature of the obligation or kind of breach, the other party shall have the right of immediately terminating this agreement by giving notice of its election so to do by telegram, cablegram or radiogram, addressed to the other party at its address appearing at the end of this agreement. For the purposes of this paragraph, the telegraph, cable, or radio company, with whom such telegram, cablegram or radiogram is deposited shall be deemed to be the agent of the party to whom such telegram, cablegram or radiogram is addressed, and such termination shall be effective immediately upon deposit.

Any waiver by either party of the right to terminate this agreement because of any such failure of the other party shall extend only to the particular failure or breach so waived, and shall not operate as a waiver of any future failure or breach.

It is further provided that either party hereto shall have the right, independent of any violation of the provisions hereof, to terminate this agreement upon giving

the other party thirty (30) days notice of its election and desire so to do; any such notice shall be given by telegram, cablegram, radiogram, or registered letter transmitted via air-mail service addressed to the other party at its address appearing at the end of this agreement. Such termination shall become effective thirty (30) days after the date of the depositing of such telegram, cablegram, radiogram, or registered letter with any telegraph, cable, radio, or air-line company having means of communication between the places of business of the parties hereto indicated at the end of this agreement.

(b) At the expiration of the term of this agreement or upon its earlier termination by either party as hereinbefore provided, or upon its termination by agreement of the parties, Seller shall have the right if it so elects to repurchase from Distributor any or all unsold or undelivered stock of Zenith merchandise in Distributor's possession. Such right of repurchase shall continue for a period of 30 days after the expiration of the term hereof or after receipt of notice of the earlier termination of this agreement pursuant to the second sub-paragraph of Paragraph 9 (a) of this agreement, or after the receipt of notice of the earlier termination of this agreement pursuant to the fourth sub-paragraph of Paragraph 9 (a) of this agreement, (irrespective of the effective date of the earlier termination under either the second or the fourth sub-paragraph) or from the date of termination in the event of its termination by agreement of the parties, and during such 30-day period Seller may from time to time repurchase said parts of said merchandise as it so elects without affecting its right of repurchasing hereunder any part or the whole of the remainder of said merchandise. Distributor

agrees not to sell or attempt to sell such stock in whole or in part to any person other than Seller during such option period. In the event of any such repurchase or repurchases, Seller will pay to Distributor the Seller's current net wholesale Distributor's price on each item of such merchandise at the time of such repurchase by Seller or the original cost to Distributor of such item of merchandise, whichever is lower, all C.I.F. Port of Entry, duty paid; all moneys due to Seller from Distributor shall be deducted by Seller from the repurchase price of the merchandise so repurchased in whole or from time to time. There shall also be deducted from such repurchase price the cost to Seller of repairing, renewing, or reconditioning such repurchased merchandise.

(c) Upon the expiration of the term of this agreement or its earlier termination in accordance with the provisions of sub-paragraphs two or four of paragraph 9 (a), or upon its termination by agreement of the parties, all orders for merchandise which have not been shipped by Seller prior to such expiration or sending of notice of termination (irrespective of the effective date of termination) or the effective date of termination by agreement of the parties, shall be cancelled and revoked, and under such circumstances neither party shall be liable to the other for the non-delivery or non-acceptance of such unshipped orders. The right of termination of this agreement under the fourth sub-paragraph of paragraph 9 (a) is absolute. Upon the expiration of the term of this agreement or upon its termination, neither party shall be liable to the other to any extent whatsoever for any damages, expenditures, loss of profits or prospective profits of any kind or nature sustained or arising out of or alleged to have been sustained

or to have arisen out of such termination. The expiration or termination of this agreement shall not, however, relieve or release either party from making payments which may be owing to either party under the terms of this agreement.

10. Execution and Interpretation: (a) This agreement shall not be binding upon Seller until it has been executed on behalf of Zenith Sales Corporation, at Chicago, Illinois, U.S.A. by one of its executive officers.

(b) This agreement is to be deemed to have been entered into in the City of Chicago, Illinois, U.S.A., and its interpretation, construction, and the remedies for its enforcement or breach are to be applied pursuant to and in accordance with the laws of the State of Illinois, U.S.A.

11. The right of Distributor herein contained shall not be renewed nor shall any of the terms of this agreement be deemed to be waived by Seller or amended unless such renewal, waiver or amendment be in writing and signed by one of the executive officers of Zenith Sales Corporation and further, in the case of waiver or amendment unless such waiver or amendment recites specifically that it is a waiver of or amendment to the terms of this agreement, and Distributor hereby acknowledges notice that no executive officer of Zenith Sales Corporation is authorized so to do except in the manner aforesaid.

12. This agreement sets forth the entire agreement and understanding between the parties and merges all prior discussions between them and neither of the parties shall be bound by any warranties, expressed or implied,

or by any conditions, definitions, or representations with respect to the subject matter of this agreement, other than as expressly provided herein.

13. Assignment: The rights of the Distributor hereunder are personal to the Distributor and are not assignable or transferable to any other person or persons without the consent in writing of the Seller first being obtained.

14. All pronouns wherever and whenever used herein referring to Distributor, though in the singular number and masculine gender, shall be construed as if expressed in the proper number and gender.

ZENITH SALES CORPORATION
Chicago 39, Illinois, U.S.A.

By L. C. TRUESDELL

DISTRIBUTOR
UNITED MERCANTILE COMPANY LTD.

By A. R. RAMSAY
A. R. Ramsay, Director

ADDRESS Park Lodge, Park Close
London, S. W. 1, England

DURABLE CONSUMER GOODS

6

JANUARY 1961

TELEVISION SETS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

• • •

DURABLE CONSUMER GOODS

A SERVICE OF ECONOMIC FORECASTING
AND MARKET RESEARCH

• • •

SUMMARY AND CONCLUSIONS

• • •

PART II

Conditions in the television industry deteriorated during the second half of 1960. The industry began the period with high stocks as a result of over-optimistic expansion in manufacturing capacity and production, during the 1959 boom in sales. The situation was further aggravated by the reimposition of credit restrictions in April 1960. Sales continued to run below supply throughout most of the year, leading to an even greater accumulation of stocks which are now estimated at about 1 million sets. The immediate problem of stock clearance is complicated by the introduction of sets with 19″ screens which, it is feared, will increase the public's reluctance to buy the 17″ sets now forming 90 per cent of manufacturers' stocks.

Manufacturers' sales during the first nine months of 1960 were 30 per cent below the total for the corresponding period

in 1959. Although demand fell so sharply, production was cut-back by only 10 per cent—hence the increase in manufacturers' stocks. Productive capacity is currently estimated at 3 million sets per year while demand is expected to run in the region of 2 million sets per year during the next few years. Once current stocks have been absorbed the output required to cover demand in 1961 and to replenish normal stocks is between 1 million and 1.5 million sets—roughly 50 per cent or less, of existing capacity. Most manufacturers are already working below capacity and short-time working is expected to increase in the immediate future.

PART III

The analysis of the consumers survey showed that only 24 per cent of households are now without a television or rediffusion/relay set. Over the last two years 60 per cent of sales have been made to households buying their first television. This market for initial sets is now largely satisfied and future demand is expected to be predominantly for replacement purposes, running at a lower level than the previous demand for initial sets.

Investigations into buying intentions compared with the two previous surveys, show a lower percentage of households expecting to purchase sets during the next twelve months. This suggests that demand will run at a reduced level during 1961, an impression supported by the estimated timing of purchases which gives an indication of the intensity of demand. A much smaller proportion of potential purchasers than a year earlier are expecting to buy during the next three months and a larger proportion are uncertain as to when they will buy.

CONCLUSIONS

Confronted with an almost saturated market, sales of television sets are expected to run at a lower level of 2 million sets or less in 1961. Publicity given to the Pilkington Com-

mittee's investigation into the possible change-over to a 625-line transmission system and the adoption of colour television may also depress sales by encouraging potential purchasers to delay buying until decisions have been made on these issues.

The increase in the replacement period and consequent reduction in the amount of hire purchase instalments may give some slight encouragement to sales. Nevertheless, only a reduction in the hire-purchase deposit or a cut in the 50 per cent purchase tax is likely to have sufficient impact to clear the large accumulation of stocks and to restore the industry to near full-time working within the next six months.

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

• • •

1. *The Structure of the Industry*

At present the television industry is experiencing a difficult period following over-production in 1959 and the reimposition of credit restrictions in April, 1960, which served to further curtail demand in a market already approaching saturation. The normal seasonal increase in sales after the Radio Show culminating in a pre-Christmas peak failed to reach even the most modest expectations. Most manufacturers are now in an unhappy position with plants working below capacity and capital tied up in large stocks, the disposal of which is a major problem.

Some of the larger television and radio firms have increased the diversification of their interests in recent months thus decreasing their dependence upon television sales. Electric and Musical Industries whose television interests lie in its 49 per cent holding in the British Radio Corporation—

the remaining 51 per cent is owned by Thorn Electrical Industries—acquired Morphy-Richards, the domestic appliance manufacturers. Philips Electrical Ltd. also expanded into the domestic appliance field through its purchase of Ada (Halifax) Ltd. Electric and Musical Industries then moved further into the electronics field by acquiring the Ardente Group, known chiefly as producers of hearing aids.

The proposed merger between English Electric Ltd. and the General Electric Co. Ltd. failed to materialise but that between Pye and Ekco has met with greater success. This continues the trend towards greater concentration in the television industry, and this movement may gather strength in the present market conditions under which the larger units of production are thought to have the best chance of survival.

Short-time working and cut-backs in production are expected to continue for at least the first six months of 1961 and probably longer. During this period firms which are heavily dependent upon sales of television sets may be particularly vulnerable to take over bids. While production and demand continue to experience their present difficulties it is doubtful whether any of the British manufacturers will want to acquire additional capacity. Any take over bids, therefore, may well come from overseas—particularly from the United States where only five of the ten major manufacturers are currently active in Europe.

The first sign of American interest in the British market, which can be used as a base for trading with the Seven and possibly with the Six, came with the establishment of Magnavox Electronics Ltd. by the American firm of Magnavox. Magnavox Electronics Ltd. is expected to commence production of television sets at the Barking factory of Collaro Ltd., also controlled by Magnavox, early in this year.

2. Trends in Design

• • •

Views within the industry on the advisability of changing the line definition system differ among manufacturers. Several makers feel that the marginal improvement in picture definition resulting from the changeover is insufficient to justify the confusion to broadcasters, manufacturers, dealers and the public which would follow. A changeover to 625 lines would also involve retooling, higher transmission costs, and, initially at least, the more complex 625 line sets would be dearer than the current receivers. An additional worry is the possibility of the adoption of 625 lines opening the market to competition from foreign firms, especially West German, which are already experienced in producing these sets. On the other hand, it should improve the export prospects of the more efficient British firms.

• • •

3. *Distribution*

Large stocks are one of the major problems of the industry but these are chiefly concentrated with the manufacturers rather than with the dealers. Retailers, after over-ordering at the 1959 Radio Show, have at last managed to clear most of their stocks, but realising the low rate of demand and suspecting that the new 19″ sets would make 17″ stocks unsaleable they have kept their buying low in order to minimize their stocks. Faced with the fall in demand and losses on unsound hire purchase sales many of the 15,000 retailers are experiencing hard times. They owe money to manufacturers who have extended their credit terms to retailers. This, together with the dependence of retailers on sale-or-return trading, has tended to increase further the financial burden on manufacturers.

The discount rate of 30 per cent given by all manufacturers, except Radio and Allied Industries Ltd., with 33⅓

per cent, remains unchanged. Increased competition among manufacturers to dispose of excessive stocks of 17" sets is not expected to affect the retailers' discount rate. Although manufacturers strongly dislike any deviation from resale price maintenance, widespread price decontrol may take place to clear stocks of obsolete sets. In such cases manufacturers lower their trade prices to retailers, leaving the retailers' discount margin at the same rate but putting the selling price at the discretion of the dealer. Dealers can then either offer the set at a "bargain price" or can attempt to sell it at the original list price and make a much higher personal profit.

Other means of encouraging sales which have been adopted by retailers include the offering of inflated part exchange allowances on old sets although they are comparatively valueless. Free gifts to purchasers of sets are another method by which retailers encourage sales.

At present a 20 per cent deposit is required on hire-purchase sales with repayment over a period not exceeding three years. An attempt to help people save enough money for the deposit was made by Pye Ltd. in its 'Home loan scheme', but this was abandoned only four weeks after its adoption. Under the scheme sets were to be loaned to prospective purchasers for three months without payment of a deposit, during which period the customer paid weekly instalments into an account until at the end of the period he had accumulated sufficient money for the deposit on the set. The account was then to be transferred to the dealer with the customer paying normal hire-purchase instalments on the set.

As the deposit required on a rented set is only three months rent this has led to an increase in the number of rentals at the expense of hire-purchase sales. Weekly rents are highly competitive with older sets being offered at lower rents and with rents decreasing during the contract

period in order to discourage the returning of sets in order to hire the latest model.

• • •

5. *Trends in Production, Exports, Imports and Supply*

• • •

iii) *Imports*

Deliveries from overseas are small and no official import statistics are published, but should the 625 line system be adopted the importation of sets would become more practical and in the early months imported sets might be available at lower prices than those of home produced sets.

• • •

Production and Supply of Television Sets
('000 units)

	Production	Export Sales	Supply= Production minus Exports	Home Sales[1]	Supply minus Home Sales
1950	541	—	541	509	+ 32
1951	711	—	711	691	+ 20
1952	812	—	812	784	+ 28
1953	1,147	6	1,141	1,145	— 4
1954	1,237	8	1,229	1,250	— 21
1955	1,771	7	1,764	1,686	— 78
1956	1,457	10	1,447	1,433	+ 14
1957	1,867	18	1,849	1,800	+ 49
1958	1,985	25	1,960	2,032	— 72
1959	2,838	24	2,814	2,776	+ 38
1958 Qtr I	458.6	9.4	449.2	319	+130.2
Qtr II	419.4	3.3	416.1	259	+157.1
Qtr III	424.8	4.4	420.4	513	— 92.6
Qtr IV	682.1	7.5	674.6	941	—266.4
1959 Qtr I	551.5	4.3	546.2	520	+ 26.2
Qtr II	659.6	6.7	652.9	526	+126.9
Qtr III	680.3	4.0	676.5	757.6	— 81.1
Qtr IV	946.3	8.7	937.6	972.8	— 35.2
1960 Qtr I	655.3	7.1	648.2	423.8	+224.4
Qtr II	552.1	4.3	547.8	314.3	+233.8
Qtr III	496.9	10.3	486.6	526.4	— 39.4

[1]Deliveries from manufacturers.

DURABLE CONSUMER GOODS

7

JULY 1961

TELEVISION SETS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

DURABLE CONSUMER GOODS
A SERVICE OF ECONOMIC FORECASTING
AND MARKET RESEARCH

• • •

SUMMARY AND CONCLUSIONS

• • •

PART II

Although production is still running well below capacity, conditions have improved slightly in the television industry in the last six months. The clearance of accumulated stocks of 17″ sets is now well in progress, chiefly as a result of widespread price cutting on these sets. Resale price maintenance on 17″ sets has virtually collapsed as manufacturers, with two exceptions, have reduced their trade prices leaving retail prices unchanged, and dealers have had to resort to various kinds of concealed price cutting in order to clear their stocks.

The problems of a saturated market and surplus capacity have led to further rationalisation in the industry with amalgamations of set manufacturers and also of suppliers of equipment. Production was severely cut-back in the early months of 1961 when output for January-March was the lowest total recorded for any quarter since April-June 1953.

PART III

The analysis of the interviews with consumers shows that 78 per cent of households now possess at least one television set. Rented sets now account for 27 per cent of all sets owned, excluding relay sets and, of sets obtained during the last two years, 40 per cent were rented. Investigations into the intentions of people intending to obtain a television set shows a shift away from those intending to buy sets towards an increasing number who intend to rent sets.

Although the number of households expecting to obtain sets has remained constant compared with the last survey, only 19 per cent of potential purchasers expected to buy within the next six months compared with 42 per cent last December that expected to buy during the following six months' period.

CONCLUSIONS

A feeling of pessimism about the economic situation seems likely to lead to a postponement of buying and the outlook for the television industry during the next six months does not look very bright. Manufacturers of rental sets should benefit from the tendency towards renting rather than buying sets, which is expected to strengthen as speculation about colour television and a change of line standard are likely to make people reluctant to purchase a set which may shortly become obsolete. Productive capacity still exceeds estimated demand by nearly a million sets a year, and the next six months is likely to see the disposal or diversion of part of this capacity to other uses.

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

• • •

1. *The Structure of the Industry*

The production of television sets is still running well below capacity but trade sources believe that the worst of the recession has now passed. Although the credit restrictions have not been relaxed since January, sales improved as a result of widespread price reductions on 17″ sets. Prices of the 17″ models were reduced in an attempt to clear stocks, estimated at nearly a million sets last December. The stock problem was further complicated by the release of 19″ sets which automatically superseded the 17″ models. As a result of price reductions stocks of 17″ sets have fallen considerably and the industry hopes that sales of 19″ models will commence in volume in the autumn when the new selling season starts.

The most pronounced trend in the structure of the industry during the last six months was towards larger and more economic units of production. The process of reorganisation in the industry is expected to be followed by a reduction in manufacturing capacity, to be brought about by the closing down of surplus units or their diversion to the manufacture of other products. Productive capacity, despite recent mergers in the industry, is still estimated at approximately 3 million sets per annum, while demand is not expected to exceed 2 million sets per annum in the foreseeable future.

Prominent among the mergers of television producers was the take-over of Ultra Radio and Television and Pilot Radio and Television, both subsidiaries of Ultra Electric (Holdings), by Thorn Electrical Industries. The purchase of the entire share capitals of Ultra and Pilot for £2.4

million in cash followed soon after the sale by Ultra of a 40 per cent interest in its electronics subsidiary to Electronics International Capital an American investment company. It is understood that Ultra suffered from accumulated stocks and a swollen overdraft as a result of the recession in the television industry, and was forced to raise cash in order to restore the liquidity of the group. The acquisition of Ultra and Pilot reinforces Thorn's position as the largest group in the industry, it now has the trade names of Ferguson, Philco, H.M.V., Marconi, Champion, Ultra and Pilot, all of which retain their separate identities for marketing purposes.

Another merger of major interest to the industry was the alliance between the General Electric Company and Radio and Allied Industries which united the G.E.C. and Sobell and McMichael trade names. The acquisition of Radio and Allied's share capital by G.E.C. is to be followed by a reorganisation of the company's interests in the television and radio field. It is also expected that Radio and Allied will enter the domestic appliance industry.

• • •

The stock position which was worrying the industry at the end of the year has been eased by the higher sales resulting from open and concealed price reductions. Stocks are at present estimated at around three-quarter million sets which are distributed between dealers, who are believed to hold some 400,000 sets, and manufacturers with some 350,000. In addition to price cutting the stock position has been eased by the increased volume of rentals. The imposition of credit restrictions with a 20 per cent deposit automatically reduced sales and tended to deflect potential customers towards renting sets for which a smaller deposit, comprising three months' rent, is required. An additional factor influencing the choice between purchasing and rent-

ing a set is the fear in the minds of the public that television sets purchased now may have become obsolete before their normal lifespan of five or six years has elapsed. These fears have been aroused by the recent publicity given to the evidence placed before the Pilkington Committee on the future of television and by the general controversy in the industry over line standards, a third channel and colour transmissions.

The rental section of the industry is divided into two groups; the major companies specialising in rentals and the ordinary radio and television dealers who often started to rent sets in an attempt to clear excess stocks.

The most important rental companies are Radio Rentals, Domestic Electric Rentals (D.E.R.), Rentaset—which is the rental network of Relay Exchanges, Robinson Rentals and British Relay Wireless. Some companies supply specially designed, simplified sets for renting in order to keep costs down and one company, Radio Rentals has it own manufacturing subsidiary producing under the Baird trademark. Until recently Baird sets were rented or sold only through the Radio Rentals shops but Baird sets are now beginning to appear for sale through normal dealer outlets.

Most radio and television dealers have entered the rental market, but some dealers have not investigated the economics of the rental business and have experienced financial difficulties and even bankruptcy. Dealers were encouraged to enter the rental business by the need to get some return on the large stocks of sets which had accumulated in their shops and were immobilising their capital. In some cases dealers managed to recover the cost of the set and even make a profit, but others were less fortunate. Dealers prefer to sell rather than rent sets as rental tends to operate on lower profit margins after service and installation costs have been met, also it incurs a very rapid rate of capital depreciation.

Competition in the rental business has been intense with

rental rates falling. A new company, Rank Visda, a subsidiary of the Rank Organisation, has recently entered the market offering sets at even lower rates than those previously prevailing in the market.

2. *Trends in Design*

It is reported from trade sources that the new 19" set is not yet selling in volume as the public is at present making price the primary consideration when purchasing a television set and is, therefore, buying the cheaper 17" sets. Dealers report that the difference between the older 17" models and the 19" sets with square screens is not fully appreciated by the public and to many people it does not justify an extra 5 guineas on average in price. Another factor promoting sales of 17" sets before their 19" successors is the desire of dealers, backed by manufacturers, to clear the stocks of last year's models before selling the newer ones.

• • •

3. *Distribution*

The distribution system has been relatively unchanged during the last six months although resale price maintenance has suffered considerably. Most retailers are now offering 17" sets at cut prices, either openly or in concealed form which still pay lip service to resale price maintenance. Two manufacturers, G.E.C. and Decca, have reduced their prices to conform with the market value but other manufacturers have left their retail prices unchanged while attempting to clear their stocks by offering reduced trade prices to the dealer. Retailers have been unable to sell sets at their original prices and have resorted to attracting customers by offering various forms of discounts. The most common form of concealed price cutting is the offer of an inflated trade-in allowance on second-hand sets and some cases have been reported of dealers providing a used set if the customer does not already own one.

One important chain of retailers estimated that 80 per cent of the group's sales of television sets in June were made at reduced prices. The same retailer stated that sales of the new season's models, which usually account for 60 to 70 per cent of total sales in June, reached only 10 per cent of total sales during the month.

• • •

Discount rates remained unchanged with the exception of Regentone which has raised its discount to 33⅓ per cent, in line with Radio and Allied, but above the 30 per cent offered by the rest of the industry.

• • •

5. *Trends in Production, Exports, Imports and Supply*

(i) *Production*

In 1960 production of television sets fell by 25 per cent from 2,838,000 sets manufactured in 1959 to 2,141,000 sets. The imposition of credit restrictions and the consequent fall in demand led to cutbacks in production in the latter half of the year. Production in the last quarter of 1960 was 54 per cent below the total for the corresponding quarter in the previous year.

There was no recovery in the first quarter of 1961 when production, at 272,400 units, was the lowest total for any quarter since April-June 1953. It was nearly 60 per cent down on the comparable level a year earlier.

• • •

(iii) *Imports*

Statistics showing the volume of import deliveries are not available but it can be assumed that these remain negligible as Britain is the only major country using sets designed for the reception of pictures on the 405 line standard. The British market is not, therefore, open to foreign manufacturers unless they are prepared to design special models to meet the British line standard.

• • •

Production and Supply of Television Sets
('000 units)

Yearly Totals

	Production	Export Sales	Supply = Production minus Exports	Home Sales[1]	Supply minus Home Sales
1953	1,147	6	1,141	1,145	— 4
1954	1,237	8	1,229	1,250	— 21
1955	1,771	7	1,764	1,686	— 78
1956	1,457	10	1,447	1,433	+ 14
1957	1,867	18	1,849	1,800	+ 49
1958	1,985	25	1,960	2,032	— 72
1959	2,838	24	2,814	2,776	+ 38
1960	2,141	39	2,102	1,817	+ 285

Quarterly Totals

1959	Qtr I	551.5	4.3	546.2	520	+ 26.2
	Qtr II	659.6	6.7	652.9	526	+126.9
	Qtr III	680.3	4.0	676.5	757.6	— 81.1
	Qtr IV	953.4	8.7	937.6	972.8	— 35.2
1960	Qtr I	656.4	7.1	648.2	423.0	+225.2
	Qtr II	553.1	4.3	547.8	311.2	+236.6
	Qtr III	495.3	10.3	486.6	523.9	— 37.3
	Qtr IV	436.0	16.9	419.1	559.1	—140.0
1961	Qtr I	272.4	10.1	262.3	343.0	— 80.7

[1]Deliveries from manufacturers.

DURABLE CONSUMER GOODS

8

JANUARY 1962

TELEVISION SETS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

DURABLE CONSUMER GOODS

A SERVICE OF ECONOMIC FORECASTING
AND MARKET RESEARCH

• • •

SUMMARY AND CONCLUSIONS

• • •

PART II

Production continued to fall, but this was as much in order to reduce stocks as in response to a fall in demand. By the end of the 3rd quarter of 1961 stocks were down to a reasonable level for the first time for 18 months.

The excess supply and slack trading conditions resulted in considerable changes in the structure of the industry in the first half of the year. Big changes are also taking place in distribution: though less dramatically. The proportion of sets rented has been rising very rapidly and sets linked to a wired transmission system are gaining in popularity.

The general pattern of the industry's development in the next few years depends very much on the report of the Pilkington Committee and its recommendations on three major topics—the line standard to be used for transmissions, colour television and Pay TV—are eagerly awaited by the industry.

PART III

Ownership of television sets now seems to have reached a plateau. On the other hand the proportion of sets rented has risen considerably: of sets obtained in the two years prior to the present survey 45 per cent were rented compared with 40 per cent and 37 per cent respectively in April and May, 1961 and October-November 1960.

The proportion of informants intending to buy or rent a television set in the next 12 months has declined over the last year: this is due to a very sharp fall in intentions to buy not being completely outweighed by a large increase in intention to rent. It is worth noting too that 59 per cent of those intending to rent expect to do so in the next six months while only a third of those intending to buy expected to purchase in the same period.

CONCLUSIONS

The general economic outlook for the first six months of 1961 is not promising: this, plus the uncertainty surrounding the future of television broadcasting will act as a depressant on the market during the first half year. Direct sales (including H.P. sales) will be hardest hit: rental's share of the market should continue to increase.

A general upturn in the economy is expected during the second half of the year and by then the Pilkington Committee's recommendations will be known and possibly also the Government's decisions on the Report. This should give added impetus to the upturn, though it should be emphasized that there seems little prospect of the industry working at its present capacity by the year end.

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

• • •

1. *The Structure of the Industry*

An air of uncertainty surrounds the television industry

at present; its future development depends very much on the recommendations which the Pilkington Committee makes when it finally presents its report. The wave of amalgamations and takeovers which marked the first six months of last year has passed while stocks continue to fall to more manageable levels, and there were few important developments during the second half of 1961.

The only notable change in the structure of manufacturing firms has been in the British Radio Corporation—the joint E.M.I. and Thorn subsidiary. In future all equipments bearing the H.M.V. and Marconiphone trade marks will be sold exclusively by B.R.C. At least one foreign firm will enter the British market if the 625 line system is adopted. Zenith, the U.S. manufacturers, have announced their intention of adding television sets to the range of radio equipment which is already marketed for them in the U.K. by the United Mercantile Company.

• • • •

2. *Trends in Design*

Future technical developments are very much in the hands of the Pilkington Committee, but most manufacturers are trying to cover the main possibilities in the design of their current models. There are three main topics on which the industry is waiting for Pilkington to give a decision—the 405/625 controversy, Pay T.V. and colour.

The 405/625 line decision has probably aroused most controversy, with the majority of manufacturers favouring the 405 line standard while Pye advocates the use of 625 lines. Both the B.B.C. and the I.T.A. have published their recommendations on how the present system of transmissions could be changed to the 625 line standard without too much dislocation. 21 out of the 24 television set makers at the last Radio Show were anticipating a 625 line system by exhibiting sets which can be converted, at varying costs, to

625 line reception.

A technical problem which arises out of the controversy is that transmissions on the u.h.f wavebands—necessary if both 405 and 625 line transmissions are to be screened—will be very difficult. (I.T.A's projected scheme for the changeover is designed to use the as yet more efficient v.h.f. bands for 625 line transmissions). It is also the case that the 625 line transmission requires a wider channel and, therefore, within a given band fewer channels will be possible. The potential number of channels however appears far greater than the number likely to be required in the foreseeable future, although some non-technical writers have recently disputed this and favour the retention of the 405 line system on the grounds that it will permit the viewer a wider choice of programmes.

Pye, the leading advocate of the 625 line system, claim that they would be able to export far more television sets, as the adoption of 625 lines would bring the U.K. into line with most European countries and the U.S.A. This would also open the U.K. market to foreign competition—indeed, as was mentioned above, Zenith, the U.S. firm, have already announced their intention of entering the U.K. market if the 625 line system is adopted. Despite the opposition of the major part of the industry, it is widely believed at the moment that the 625 line system will be recommended by the Pilkington Committee.

* * *

3. *Distribution*

The present trends in the distribution of television sets could lead to a major readjustment in the structure of television distribution. In the past, outright purchases of television sets by the general public provided the main outlet for the industry's production. With the decline in the industry's fortunes, however, there are signs of a clear change in consumers' habits.

A television set can be either rented or purchased, and its reception can be either by wire or aerial. Until recently purchases of aerial television sets have predominated, but in the recent past there has been considerable growth in the other methods—rented aerial, rented wired and purchased wired. Relay subscribers now number about half a million, or about 5 per cent of total television licences, although growth in the early 1950's was very slow. Since the arrival of ITV in 1955, however, the growth has been rapid at about 70 per cent per annum.

Recently, too, there has been a rapid growth in rental television services—often on a small scale where individual retailers have begun their own rental services in order to earn some return on their capital tied up in unsaleable stocks. Of all TV sets in use in 1956 only about 2 per cent were rented. By 1959 the figure was 6 per cent and by the beginning of 1961 it had risen to nearly 14 per cent. During 1961 trade sources estimate that as many as two-thirds of all new sets obtained were rented, and if this is the case it means that over 20 per cent of television sets are now held on rental.

Thus retailers selling aerial television are faced with the problem not only of supplying a market which has declined in recent years but with increased competition from other forms of supply to that market. In addition, they face the threat of the abolition of Resale Price Maintenance at some time in the not too distant future and the current increase in the number of discount stores which are already ignoring R.P.M.

All in all, retailers are not having a very profitable time, as can be seen from the growing number of bankruptcies in 1961. There have been definite developments by way of response. In the first place several larger retailers have gone into the rental business on their own account, or alternatively set up their own wired services. Others have agreed to act as agents for the big relay firms—earlier this year

dealers in Nottingham and Leicester signed an agreement to sell Rediffusion's terminal units and were given facilities to connect sets of any make to the IF system.

On the other hand measures were also taken to fight, as well as to combine with the new rivals. In this category the Radio and Television Retailers' Association produced a scheme for dealers to join in group buying, group servicing and pooled transport. The first pilot scheme started in December in South London. Considerable publicity too, has been given to two matters on which the retail trade would like the government to take action. The first is the preservation of retail price maintenance and pressure has also been put on manufacturers to ensure that they do not allow price cutting on their maintained goods. The second is that the tax law which allows rented sets to be depreciated on the same basis as plant and machinery by the firms owning them, should be altered. This law certainly does give an advantage to rental firms; though if the broadcasting system were altered to 625 lines it would cause a considerable capital cost to the renters.

The retail trade is therefore passing through a difficult time and the uncertainty surrounding the technical future of television is increasing their difficulties. As long as customers are uncertain whether their sets will become obsolete in a few years time they will be more prone to rent sets, while if Pay TV does come it may be only on piped television services. Thus the future pattern of distribution is very much tied up with the report of the Pilkington Committee and the way in which the retail trade meets the challenge which is facing it.

• • •

5. *Trends in Production, Exports, Imports and Supply*

(i) *Production*

Production of television sets fell sharply during the first three quarters of 1961 to a level less than 50 per cent of that

in the same period of 1960. This was not so much a result of the fall in demand as a belated response to the huge stock build-up which had taken place in the first half of 1960 Having in the first quarter of 1961, reached its lowest level since the second quarter of 1953, production fell further in the second quarter to 260,500 sets but rose again in the third quarter to 281,900 sets.

• • •

(iii) *Imports*

Imports, in the absence of any published figures, are assumed to be negligible.

• • •

Production and Supply of Television Sets

('000 units)

Yearly Totals

	Production	Export Sales	Supply = Production minus Exports	Home Sales[1]	Supply minus Home Sales
1953	1,147	6	1,141	1,145	— 4
1954	1,237	8	1,229	1,250	— 21
1955	1,771	7	1,764	1,686	— 78
1956	1,457	10	1,447	1,433	+ 14
1957	1,867	18	1,849	1,800	+ 49
1958	1,985	25	1,960	2,032	— 72
1959	2,845	24	2,814	2,776	+ 38
1960	2,141	39	2,102	1,817	+ 285
		Quarterly Totals			
1959 Qtr I	551.5	4.3	546.2	520	+ 26.2
Qtr II	659.6	6.7	652.9	526	+126.9
Qtr III	680.3	4.0	676.5	757.6	— 81.1
Qtr IV	953.4	8.7	937.6	972.8	— 35.2
1960 Qtr I	656.4	7.1	648.2	423.0	+225.2
Qtr II	553.1	4.3	547.8	311.2	+236.6
Qtr III	495.3	10.3	486.6	523.9	— 37.3
Qtr IV	436.0	16.9	419.1	559.1	—140.0
1961 Qtr I	272.4	10.1	262.3	343.0	— 80.7
Qtr II	260.5	4.9	255.6	314.7	— 59.1
Qtr III	281.9	10.2	271.7	393.1	—121.4

[1]Deliveries from manufacturers.

DURABLE CONSUMER GOODS

9

JULY 1962

TELEVISION SETS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

DURABLE CONSUMER GOODS

A SERVICE OF ECONOMIC FORECASTING AND MARKET RESEARCH

SUMMARY AND CONCLUSIONS

PART II

The most important development in the structure of the television manufacturing industry in the first half of 1962 was the acquisition of Murphy Radio by the Rank Organisation, which is probably now the group with the biggest share of the market. The other leading groups are British Electronic Industries, the Thorn Group, Philips, and G.E.C. Another subscription television system, Marconi's Pay-vision, has appeared on the market.

In anticipation of the Pilkington recommendation on line definition most of this year's models are either convertible or already switchable, and in response to the trend from purchase to rental designs have become plainer. Nearly all models have screens of 19 or 23 inches rather than 17 or 21 inches.

Retailers continued to be hard-pressed by the slackness

of the market and the dominant preference for renting rather than buying. Their discounts have risen slightly, but this has been counteracted in many cases, since dealers often feel obliged to offer generous rental or hire purchase terms.

Production has improved slightly, but this is due to the end of destocking by manufacturers; home deliveries have continued to fall.

PART III

The proportion of households with television sets still seems to be rising; in the present survey the percentage was 81 compared with 79 six months earlier and 78 a year ago. The proportion rented was 29 per cent against 28 and 27 six months and a year ago respectively. Of sets obtained in the two years up to the time of the present survey 42 per cent were rented; the equivalent figure in the survey six months earlier was 45 per cent and that a year earlier 40 per cent.

The proportion of households intending to buy a set in the next twelve months has declined further and is now less than those intending to rent one. In this survey the proportion was 2.6 per cent against 2.9 per cent six months and 3.4 per cent a year earlier, while the proportion intending to rent was 2.7 per cent against 2.8 per cent in the previous two surveys. Of those intending to buy or rent sets a higher proportion expected to do so within six months than at the time of the survey a year ago.

CONCLUSIONS

The prospect for television manufacturers has at last improved. The outlook is that the level of activity in the economy will rise in the next few months, and consumption expenditure in particular is likely to increase. The publication of the Pilkington report and the subsequent White

Paper on broadcasting, which occurred after the intentions of housewives were polled for this survey, has cleared up the immediate uncertainty, and so given a boost to the market. In any case many of the people, who have postponed the acquisition of new sets during the past eighteen months, would not have been willing to do so for much longer. As retailers' stocks are now very low, an increase in demand from the public should quickly be reflected in manufacturers' home deliveries. For these reasons it is forecast that deliveries will be considerably higher in the second half of 1962 than in the same period of 1961, bringing the total for the whole of 1962 to about 1,500,000 units, which is the level achieved in 1961. Deliveries are expected to decline seasonally in the first two quarters of 1963 but to remain well above the level reached in the same quarters of 1962.

• • •

PART II

THE ECONOMICS OF SUPPLY OF TELEVISION SETS

• • •

1. *The Structure of the Industry*

There has been another big merger in the television manufacturing industry in the past six months, as a result of the acquisition of Murphy Radio by the Rank Organisation. Murphy made a net loss of £92,000 in 1960, followed by one of £216,000 in 1961. It was first reported that the Thorn group had entered into negotiations with the Murphy Board with a view to making a bid, and other companies said to be interested were Philips and the American company Magnavox, of which Collaro is now a wholly-owned subsidiary. When the Rank Organisation offered one of its shares and 3/— cash for every two Murphy shares, no rival bid was made, and on the advice of the Board 93 per cent of the

shareholders accepted. The Rank Organisation has announced that its two brands, Bush and Murphy, will continue to be marketed separately by their own sales forces, so that the merger will make no difference from the retailer's point of view. The Rank Organisation is currently bidding for the 19 per cent of shares in the Bush Company which are still held outside the Group as a further stage in its policy of rationalising and tidying up the capital structure of the Company.

There are now five main groups marketing television sets through retailers. The Rank Organisation, with Bush and Murphy, probably now has the biggest share of the market. The others are British Electronic Industries (B.E.I.) with the Pye, Pam, Ekco, Ferranti, Invicta and Dynatron brands; the Thorn group with Ferguson, Marconi, H.M.V. Philco, Ultra, Pilot and the now discontinued Thorn and Champion models; Philips with the Philips, Cossor and Stella trademarks; G.E.C. also with its own label and, through its ownership of Radio and Allied Industries, Sobell and McMichael. A sixth company, Lloyds Packaging Warehouses which markets the Regentone and R.G.D. sets manufactured by the Plessey Company, also has a significant share of the market.

These companies produce nearly all the sets sold or hired out by retail shops, and in addition manufacture many of the sets supplied by rental and relay companies. Three of them have either set up, or acquired holdings in, such companies in order to assure themselves of a share in this growing outlet. The largest companies in each of these fields, however, Rediffusion in relay and Radio Rentals in rental—manufacture their own sets; Radio Rentals also sell their sets under the Baird trademark and have a chain of retail shops. Most of the other relay and rental companies have sets made to their own specifications to which they attach their own trademarks, rather than those of the manufactur-

ers; an exception is Multisignals, the third largest relay company, whose system only requires a small installation in an ordinary set. Thorn owns both Domestic Electric Rentals (D. E. R.), the second largest rental company, and Radio and Television Renters, and also has a stake in Multisignals. The Rank Organisation controls several relay companies, of which the biggest is Regency, and by its acquisition of Murphy has obtained a holding in British Relay Wireless and Television, the other giant of the relay field, which also does substantial rental business. B. E. I. has a share in Multisignals and in British Relay. The Rank Organisation, the only company to have directly entered the retail field in a big way, is expanding its chain of Top Rank Home and Leisure Service shops, formerly called Rank-Visda. The other three groups have not, at any rate openly, acquired outlets in these ways, although they may have long standing trading connections such as that between Radio and Allied Industries and Relay Exchanges who own Rentaset.

Yet another subscription television system has appeared in the last six months. The Marconi Wireless Telegraph Company introduced Payvision, which differs from the other systems in that it does not require coinboxes and that the programmes would be transmitted by wire only. There are, therefore, at least five companies now actively advocating the introduction of subscription television, most of them willing to provide both the programmes and the metering systems. They are Payvision, British Home Entertainment, British Telemeter Home Viewing, Tolvision and Choiceview, a company jointly owned by the Rank Organisation and Rediffusion. Two other American companies, the Zenith Radio Corporation and Teleglobe Pay-TV System Incorporated, have developed metering systems which they would be willing to instal in this country. The Pilkington Committee recommended against the introduction of sub-

scription television but the Government, while promising to take careful note of the Committee's arguments, in execrable English "recognises that there are cogent considerations in a contrary sense" although it does not specify what these considerations are. The companies therefore must wait and see whether the Government's natural instinct to allow commercial enterprises to provide the public with services, whenever they are willing to do so, will prevail over the arguments put forward in the Pilkington Report.

2. *Trends in Design*

The publication of the Pilkington Report and the subsequent White Paper on broadcasting has done something to clear up the uncertainty concerning the future of television, but the main decisions already made by the Government had been widely anticipated by the industry while other decisions which will affect the future design of television sets have yet to be taken. The Government authorised the B. B. C. to introduce a second programme on 625 lines in U. H. F., which it is hoped will start in London in mid-1964, and has intimated that it intends to give a fourth channel to I. T. V. within the near future. The new B. B. C. programme will contain some colour programmes, but it has not yet been decided whether the N.T.S.C. or the S.E.C.A.M. system should be adopted. The Government has also stated that the present services will continue to be receivable on existing sets for a number of years, but that in due course they will be changed over to 625 lines.

It has postponed the decision on the timing and method of changeover until practical experience of U.H.F. transmission has been gained. There are three possible means by which the changeover might be accomplished. First, at some fairly remote date, perhaps in seven years time, the present transmissions on 405 lines could cease and be replaced overnight by 625 line transmissions on the same

V.H.F. bands. The disadvantage of this method would be that all new sets would have to be dual standard for the next seven years. Secondly, there could be a period of dual transmission, the two existing programmes being put out simultaneously on 405 lines in V.H.F. and 625 lines in U.H.F., at the end of which the former transmissions would cease and the V.H.F. bands become available for other programmes. The disadvantage of this scheme is that the V.H.F. bands, which are very suitable for television, would not be utilised by any of the four channels planned for the next few years; they could of course be used for the fifth and sixth channels, which the Government envisages as completing the ultimate pattern. The third scheme would get over this difficulty at the cost of introducing a further complication. There would be a period of dual transmission as in the second scheme, at the end of which the two programmes would only be transmitted on 625 lines but in V.H.F. as in the first scheme.

For the time being, therefore, a market will remain for the two types of set which already account for nearly all current production. These are the convertible set, which will be able to receive the planned 625 line U.H.F. transmissions after the installation of a conversion unit (price about £15) and a U.H.F. tuner (price about £5), and the dual standard or switchable set, which only requires the U.H.F. tuner. If the first method of changeover is adopted all sets sold will be of one of these two kinds for some years. If, on the other hand, either of the other methods is adopted, there will be a market for the presumably cheaper single standard 625 line sets in those areas in which the transmission of the two existing programmes on 625 lines is already in operation or imminent. The B.B.C. hopes to be able to transmit programmes on 625 lines in U.H.F. to about two-thirds of the population of Britain by early 1966.

The response of the industry to the public's inclination to rent rather than buy sets in the prevailing uncertainty has been to cut the trimmings from its sets and recommend them to traders as designed for the rental market. Ekco for example backed the release of its T. 402 model with a packaged rental promotion scheme; dealers were provided with showcards and other literature all advertising it for rental and making no mention of the retail price. As the method and timing of the changeover of present programmes from 405 to 625 lines, the timing of the introduction of any new programmes, and the speed of the advent of colour television all remain uncertain, the preference for renting as a hedge against early obsolescence will continue and so the market for plain sets is likely to remain large.

It is often asserted that the decision to switch to 625 lines will greatly encourage both imports and exports of television sets, as the same sets will become suitable both for the British and foreign markets. However, in the first place there will be no market for 625 line only sets in the immediate future. Secondly, British sets have always been less elaborately designed both internally and externally than most foreign sets, partly because of the high purchase tax in this country. The present trend towards plain rented sets may confirm the British in this taste for cheapness and simplicity. The Zenith Radio Corporation has announced its intention to enter the market with 625 line only sets, to be distributed by United Mercantile Company, but by stating that "we do not intend to compete on price but only on quality and service" they concede that their sets are too expensive for the majority.

• • •

3. *Distribution*

The preference for renting rather than outright purchase has continued in recent months, as a result of the uncer-

tainty about line definition and colour television. No reliable figures are available, but it is estimated as a result of discussions with a retail trade association and recent press comment that the present market for television sets, relay sets being excluded, is divided as follows: 25 per cent sold by retailers, 30 per cent hired out by retailers and 45 per cent hired out by rental companies. In the continuing uncertainty the proportion of the market held by rental sector can be expected to remain high. The retailers were complaining loudly earlier this year that legal regulations gave rental agreements an advantage over hire purchase. Someone renting a set has to make a deposit of three months' rent which works out at about 10 per cent of the retail price, while the minimum hire purchase deposit was 20 per cent until the Government reduced it to 10 per cent at the beginning of June. This reduction can be expected to cause some swing back from rental to hire purchase. Another complaint of the retailers is that rental companies' sets rank as plant and machinery and so are eligible for depreciation allowances, while sets hired out on rental agreements by retailers are not.

Very few television sets pass through the hands of wholesalers. Most manufacturers deal directly with the retailers who are normally appointed agents for several manufacturers. It is estimated that there are about 14,000 retail outlets altogether. Some of the small manufacturers such as Alba and Decca use wholesalers, and among the major companies the Philips group distribute some and Regentone (but not R.G.D.) all their sets in this way. Retail discounts have been rising recently; 33⅓ per cent is now standard instead of 30 per cent, and some manufacturers such as Radio and Allied Industries, Dynatron, R.G.D. and Kolster-Brands offer more. The Radio and Television Retailers' Association has been trying to increase discounts for its members by arranging bulk buying agreements. Its first

success came in February, when R.G.D. agreed to grant an extra 10 per cent discount for immediate cash settlement of purchases exceeding £100 in value. No other television manufacturers have followed this lead.

The depression in sales of television sets has brought heavy pressure on the system of resale price maintenance. In the case of rental agreements there is no price for the manufacturer to enforce, and, in the case of credit sales, by exacting artificially low interest charges a retailer can in effect undercut the listed prices. For example John James, who has a chain of 125 shops, is now offering interest free H.P. contracts with a repayment period of 12 months in his 20 shops in Bristol. This is equivalent to cutting the price by about 7 per cent, if it is assumed that an economic interest charge would be 8 per cent. The government's decision on resale price maintenance is imminent. Outright abolition is unlikely, but it may be laid down that the manufacturer may only specify a price range within which his product must be sold.

• • •

5. *Trends in Production, Exports and Supply*

i) *Production*

The production of television sets recovered slightly in the fourth quarter of 1961 to 442,000 units, to bring the total for the year to 1,256,000. This was 40 per cent less than in 1960, and the lowest total for eight years. The figure of 330,500 units for the first quarter of 1962 was also an improvement on any of the first three quarters of 1961, but this is entirely explained by the end of the long period of stock reduction by manufacturers and did not represent an improvement in the market.

• • •

iii) *Imports*

There are virtually no imports of television sets at present, though, as was seen above, the changeover to 625 line

transmissions will make them feasible. Because of the many differences that remain between British and overseas makes of television sets, however, imports are likely to grow only very slowly, if at all, in the coming months.

* * *

Production and Supply of Television Sets
('000 units)

		Production	Export Sales	Supply= Production minus export sales	Manufacturers' Home Deliveries	Change in Manufacturers' Stocks[a]
1955		1,771	7	1,764	1,686	+ 78
1956		1,457	10	1,447	1,433	+ 14
1957		1,867	18	1,849	1,800	+ 49
1958		1,998	25	1,973	2,032	— 59
1959		2,863	24	2,839	2,776	+ 63
1960		2,141	39	2,102	1,817	+ 285
1961		1,256	45	1,211	1,509	— 298
1960	Qtr I	656.4	7.1	649.3	423.0	+226.3
	Qtr II	553.1	4.3	548.8	311.2	+237.6
	Qtr III	495.3	10.3	485.0	523.9	— 38.9
	Qtr IV	436.0	16.9	419.1	559.1	—140.0
1961	Qtr I	272.4	10.1	262.3	343.0	— 81.7
	Qtr II	260.5	4.9	255.6	314.7	— 59.1
	Qtr III	281.4	10.2	271.2	393.3	—122.1
	Qtr IV	442.0	19.4	422.6	457.7	— 35.1
1962	Qtr I	330.5	21.6	308.9	295.1	+ 13.8

[a] Production minus sales minus manufacturers' home deliveries.

* * *

TABLE 6

TELEVISION SETS OBTAINED NEW, SECONDHAND OR RENTED

	ALL TELEVISION SETS	Television sets obtained since		Television sets obtained between 1 April '59 and Apr./May '61
		1 April 1960	1 April 1961	
Number of Television sets	4403 (weighted)	1253	655	1491
	100%	100%	100%	100%
Sets obtained:—				
New	61%	44%	46%	48%
Secondhand/ reconditioned	10%	15%	20%	12%
Rented	29%	42%	34%	40%

NOTE: 4 actual (10 weighted) were on loan.

DURABLE CONSUMER GOODS

9

JULY 1962

RADIOS, RADIOGRAMS & RECORD PLAYERS

PREPARED BY
THE ECONOMIST INTELLIGENCE UNIT LIMITED
IN ASSOCIATION WITH
THE BRITISH MARKET RESEARCH BUREAU LIMITED

* * *

DURABLE CONSUMER GOODS
A SERVICE OF ECONOMIC FORECASTING AND MARKET RESEARCH

General Introduction

This service combines economic forecasting with consumer market research and industrial economic analysis in order to estimate the likely future course of the supply and sale of the main durable consumer goods marketed in the United Kingdom.

The reports are issued every six months and are divided into three parts. At the front of each report the results of the three sections are summarised, and a forecast made of the likely size of the market in the coming months. The forecast is based on the results of the questions on consumers' intentions to purchase each item, considered in the light of the extent of current ownership and the economic conditions likely to prevail in the period under review.

Part I deals with the general economic determinants of demand for durable consumer goods. The longer term outlook for the economy as a whole is studied first, and is related to the likely future trends in purchases of durable consumer goods. This is followed by an examination of a

number of specific economic determinants likely to affect the demand for durable consumer goods in the short and medium term. A more detailed study is then made of the economic situation as a whole with special reference to consumer incomes and spending and the demand for durable consumer goods. This analysis is followed by the results of the consumer survey concerned with consumers' income expectations and their view on the timing of purchase of durable consumer goods in general. The results of the first part of the service thus provide a general economic forecast of the principal determinants of demand in the longer term, and an assessment of the outlook for sales of all durable consumer goods over the next six months. These forecasts are designed to assist manufacturers with their planning both by enabling them to assess the economic climate some years ahead, and by describing the immediate economic prospects which are likely to influence supply trends.

In Part II a study is made of the supply side of the durable consumer goods industry and this part deals specifically with each item included in this service. It is felt that much economic and market research concentrates too exclusively on demand trends and neglects the supply side of the equation. A study has, therefore, been made of the structure of each industry and of trends in costs and supply in relation to the general economic trends shown in Part I. Sections are also included on new developments and design trends for comparison with consumers' views on this subject, and on changes in distribution practice.

The results of the consumer survey, which was carried out between 24th April and 19th May 1962, are set out in Part III. A full description of the design and composition of the sample forming the basis of this survey, with a copy of the questionnaire, is given in Appendix A to this report. The results of the survey are very fully analysed in two

sections: the first deals with ownership and the second with intentions to purchase.

SUMMARY AND CONCLUSIONS

• • •

PART II

Notable events in the radio manufacturing industry during the past six months were the acquisition of Murphy Radio by the Rank Organisation, and the conversion of Perdio Electronics into a public company. Most of this year's new radio models are transistor portables, including many of the larger ones intended for use in the home.

Production of radio equipment has continued at a higher level than it was a year earlier. Imports have risen very rapidly, overtaking exports which are still falling. The boom in sales is confined to radios; deliveries of radiograms have now resumed their decline.

PART III

The level of ownership of radio receiving equipment has risen by one point since the last survey to 89 per cent of households, and that of record players has also risen by one point to 20 per cent. Three brands of radio with, until recently, an insignificant share of the market account for 12 per cent of current purchases.

Of radio sets purchased in the past two years 75 per cent were transistorised, 76 per cent were battery only sets and 84 per cent were portable; all these percentages have risen since the previous survey was carried out. By contrast, VHF sets have declined by one point to 21 per cent of recent purchases. There has been a sharp increase since the last survey in the percentage of record-players bought in the last two years which include 16 r.p.m turntable speeds (from 76 to 83 per cent), and which have stereophonic sound (from 24 to 30 per cent).

The proportion of respondents intending to buy all three types of equipment in the next twelve months was lower than in any of the last three surveys. The proportions for each type of equipment separately were as follows (with the figures a year earlier in brackets); radios 4.3 (5.4) per cent, radiograms 1.1 (1.3) per cent and record players 2.5 (1.8) per cent.

CONCLUSIONS

The market for radios now appears at least to have flattened out and may even be falling slightly after its very fast expansion. Evidence that it will be less buoyant in the next twelve months is provided by the survey of intentions in Part III of this report. As retail stocks are high and imported models now have a larger share of the market, manufacturers' home deliveries of radios are expected to be somewhat lower in the next twelve months.

PRODUCTION AND SUPPLY OF RADIOS AND RADIOGRAMS

('000 units)

	Radios and Radiograms				*Manufactures' Home Deliveries*			*Change in Manufacturers' Stocks(a)*
	Production	*Imports*	*Export Sales*	*Supply*	*Radios*	*Radiograms*	*Total*	
1955	2,142	54	347	1,849	1,176	372	1,548	+247
1956	1,682	39	330	1,391	1,080	228	1,308	+ 44
1957	1,848	33	300	1,581	1,356	264	1,620	— 72
1958	1,812	23	252	1,583	1,308	216	1,524	+ 36
1959	1,837	57	264	1,630	1,560	192	1,752	—179
1960	2,503	85	279	2,309	1,847	199	2,045	+179
1961	3,075	301	213	3,163	2,631	198	2,829	+ 33
1960 Qtr I	584	14.0	79	519.0	369	46	415	+ 90
Qtr II	648	17.6	71	594.6	460	36	496	+ 81
Qtr III	605	23.6	60	568.6	525	47	572	— 27
Qtr IV	666	30.1	69	627.1	493	70	563	+ 34
1961 Qtr I	588	38.5	76	550.5	443	45	488	+ 24
Qtr II	802	46.2	61	787.2	760	35	795	— 54
Qtr III	829	87.2	37	879.2	782	47	829	— 37
Qtr IV	856	128.7	39	945.7	646	71	717	+100
1962 Qtr I	667	74.2	47	694.2	542	32	574	+ 46

(a) Production minus export sales minus manufacturers' home deliveries

Source: Ministry of Aviation

PART II

THE ECONOMICS OF SUPPLY OF RADIOS RADIOGRAMS AND RECORD-PLAYERS

Introduction

In this part of the service a study is made of trends in the production and supply of radios, radiograms and record-players to the U.K. market, and of certain factors which affect this supply. Information has also been given, where possible, on tape recorders.

A section on the structure of the domestic radio equipment industry is given first and this is followed by a discussion of possible trends in design and development. A third section deals with changes in the current pattern of distribution of radios and record-playing equipment in the U.K., and trends in production costs are considered briefly in section four. Finally, the changes that have taken place in the production, exports, imports and supply of radio equipment to the U.K. home market are discussed and examined in the light of the general economic studies made in Part I.

1. *The Structure of the Industry*

The most important change in the structure of the radio and audio-equipment manufacturing industry in the past six months was the acquisition by the Rank Organisation of Murphy Radio and this company's subsequent merger with Bush Radio, which was already a Rank subsidiary. The five main groups which dominate the television market in the U.K.—Rank, British Electronics Industries, Thorn, Philips and G.E.C.—also dominate, but to a lesser extent, the radio and audio equipment field. Lloyds Packaging Warehouses, as with television sets, also has a significant share of the market and in addition to its well-known R.G.D. and Regentone brands has recently become the licensee for Emerson products in the United Kingdom through its wholly owned subsidiary Cockburn and Gunn. To date only one Emerson transistor portable radio has been put on the market, but other products are to follow.

The boom in imports of radios which continued in the first half of 1962 has greatly increased the share of the market

held by companies importing and distributing models at the expense of that held by British manufacturers. Examples are Tellux selling the Japanese Sony range, Highgate Optical Manufacturing Company and Denham and Morley, selling both continental and Japanese models.

Perdio Electronics, which is still expanding rapidly and claims a turnover in the first quarter of 1962 21 per cent higher than in the same period last year, has now become a public company. Its success has been based entirely on transistor portable radios, mostly of the small and inexpensive kind; of its ten models eight have a retail price, including tax, of less than £16. Decca, a company with a growing stake in the radio market, has recently undergone a reorganisation; the manufacture and marketing of television sets, radios, record-players and records has been transferred to a new wholly owned subsidiary called Decca Record.

• • •

3. *Distribution*

The great majority of radios, radiograms, record-players and tape recorders are sold by radio and electrical shops. These shops have been under severe pressure recently, since the decline in their television business, caused by the low level of demand and the increase in the share of the market going to rental companies, has not been compensated at all adequately by the boom in radio sales. The retailers have taken three kinds of action to protect themselves. First, they have diversified, by stocking a wider range of electrical goods, in order to reduce their dependence on television. Secondly, they have tried to increase their discount margins by means of bulk-buying. The Radio and Television Retailers' Association made an agreement with R.G.D. in January, for an extra discount of 10 per cent for immediate cash settlement of purchases exceeding £100 in value, but no

other large manufacturers have followed this lead. In some areas a number of local retailers have banded together to form bulk-buying cooperatives; for example a group of 15 London retailers with 23 shops have formed a company called the Association of Television and Electrical Retailers (London) Limited for this purpose. This sort of activity is still of very minor importance.

The third action retailers have taken is to attempt to preserve the institution of resale price maintenance. This has not often been necessary in the case of radios or audio-equipment, as these items are not yet sold in significant quantities by discount shops, and in the buoyant state of the market there has been no incentive for other dealers to cut prices.

The normal discount on radio and audio equipment appears to be 36 per cent, a little higher than that on televisions. Some producers are reported to offer higher discounts up to a maximum of 45 per cent on radios according to a trade association. The big manufacturers distribute their goods direct to the dealers whom they have secured as their agents. The smaller producers usually distribute through wholesalers and, as between them they have a considerable share of the market, a greater proportion of radios passes through the hands of wholesalers than in the case of television sets.

The Rank Organisation is the only manufacturer to have a significant number of retail outlets of its own. It is developing its Top Rank Home and Leisure Service retail chain, which was formerly called Rank-Visda, and has recently added to it by purchasing Puratone, a television rental firm with branches in London and the Home Counties.

Another channel of distribution through which radios are sold in significant quantities is the mail order houses. R.G.D. has just entered into this type of trading, and a spokesman

for the company has expressed himself to be amazed at the amount of business which can be done in this way.

• • •

5. *Trends in Production, Exports, Imports and Supply*

• • •

(iii) *Imports*

The rise in imports accelerated in the second half of 1961, reaching a total of 128,700 units in the final quarter. The aggregate for the year at 301,000 units was, for the first time, greater than exports and came to almost 10 per cent of home production. In the first quarter of 1962, when imports are usually at their lowest, they totalled 74,200 units or almost twice as many as in the same quarter of 1961.

• • •

Production and Supply of Radios and Radiograms
('000 units)

	Radios and Radiograms				*Manufactures' Home Deliveries*			*Change in Manufacturers' Stocks (a)*
	Production	*Imports*	*Export Sales*	*Supply*	*Radios*	*Radiograms*	*Total*	
1955	2,142	54	347	1,849	1,176	372	1,548	+247
1956	1,682	39	330	1,391	1,080	228	1,308	+ 44
1957	1,848	33	300	1,581	1,356	264	1,620	— 72
1958	1,812	23	252	1,583	1,308	216	1,524	+ 36
1959	1,837	57	264	1,630	1,560	192	1,752	—179
1960	2,503	85	279	2,309	1,847	199	2,045	+179
1961	3,075	301	213	3,163	2,631	198	2,829	+ 33
1960 Qtr I	584	14.0	79	519.0	369	46	415	+ 90
Qtr II	648	17.6	71	594.6	460	36	496	+ 81
Qtr III	605	23.6	60	568.6	525	47	572	— 27
Qtr IV	666	30.1	69	627.1	493	70	563	+ 34
1961 Qtr I	588	38.5	76	550.5	443	45	488	+ 24
Qtr II	802	46.2	61	787.2	760	35	795	— 54
Qtr III	829	87.2	37	879.2	782	47	829	— 37
Qtr IV	856	128.7	39	945.7	646	71	717	+100
1962 Qtr I	667	74.2	47	694.2	542	32	574	+ 46

(a) Production minus export sales minus manufacturers' home deliveries.
Source: Ministry of Aviation.

RETAIL BUSINESS SURVEY

December, 1964

RADIOS

THE ECONOMIST INTELLIGENCE UNIT

RADIOS

Introduction

This Survey was conducted in two parts. A consumer research survey was conducted by Stats (MR) Ltd, on behalf of the EIU, amongst a national random sample of 1,200 households. Allied to this was a general review of the industry carried out through extensive trade interviewing and desk research. The detailed results of the consumer research are given in an appendix, but the main conclusions have been incorporated with the general industry review, together with the specific analyses of consumer buying habits and attitudes.

Definition

The products covered in this Survey include all types of radios, including radiograms and radio sets incorporated with television sets. The main types are:

—consoles, or floor standing mains sets
—table mains sets, which are too large to be considered portable
—portable models, battery powered
—miniature personal models, small enough to be put in the pocket
—car radios
—radiograms

Cutting across these basic divisions are further divisions between sets which receive VHF signals and those which

do not; and between valve and transistor sets. VHF is gaining in popularity because of the clarity of reception, and many battery portable sets are built to receive VHF. While transistor sets were originally battery portable and personal radios, because of their compactness and low power consumption they are now becoming more powerful and sophisticated. The largest of them could almost be considered as a new class, since they have nearly the range and power of reception of a table model, combined with some of the ease of transport characteristic of a portable.

Market size

Table I. Apparent consumption of radios—UK

	Number ('000's)	Index (1958—100)	Value (£'000's)	Index 1958—100
1956	1,348	87	15,470	91
1957	1,653	107	18,551	109
1958	1,541	100	16,992	100
1959	1,803	117	19,235	113
1960	2,132	138	22,572	133
1961	3,106	202	26,877	158
1962	3,327	216	27,110	160
1963	4,530	294	33,032	194
1964 (Jan-June)	1,870			

Source: BREMA, Ministry of Aviation, and HM Customs and Excise.

Price trends

The average price per set (at manufacturers ex works, and importers' cif prices) has fallen by 37 per cent, from £11.10.0. per set in 1956 to £7.6.0. in 1963. This is due largely to an increase in the number of cheaper, lower performance models sold, rather than a reduction in price relative to quality. The large number of low powered cheap transistor sets now on the market has attracted many con-

sumers to a lower price category. Some idea of the average price of transistor radios can be gained from the average price of imported ones at £2.3.0. each, which compares with the average £7.6.0. for all radios in 1963.

* * *

Home sales, imports and exports

In the past eight years home sales by UK manufacturers have more than doubled in quantity, exports have halved, while imports have risen 8½ times since 1960. This is shown in table 5. In 1963 imports were 18 per cent of UK manufacturers' sales by value and 57 per cent by number, showing that their main strength is the inexpensive end of the market: transistor personal and portable radios. On the other hand exports (average 1963 price £9.10.0) are in a much higher price bracket than imports (average price £3.2.0.)

Transistor radios are the major category of imports, although imports of radiograms have been increasing rapidly since 1962, (table 6 transistor radios, table 7 radiograms). An important weakness of exports is in transistor radios which are not only at a low level compared with home sales and imports, but also are increasing very slowly. Exports are weak at the expensive end of the scale as well. This is illustrated by the performance of radiograms: imports exceeded exports by a wide margin in 1963, and the position is even more serious in the first half of 1964 with imports of these products the outstanding growth sector of the trade. This conclusion does not necessarily apply to all sectors, but its implications are serious. Many manufacturers believe that although it is impossible to compete with foreign companies in the range of very small transistor radios, they are relatively secure in the more expensive ranges; the performance of radiograms must cast some doubt on this optimism.

Table 5. Home sales, imports of all radios 1956-1963
(number in '000's of units; value in £'000)

	UK manufacturers' home sales		Imports	
	Number	Value	Number	Value
1956	1,309	15,071	39	399
1957	1,622	18,175	31	376
1958	1,522	16,759	19	233
1959	1,745	18,832	59	403
1960	2,047	21,921	85	601
1961	2,829	25,509	277	1,368
1962	2,757	24,786	570	2,324
1963	2,890	27,937	1,640	5,095
1964 (Jan-June)	1,097		773	
percent change Jan-June '64 on '63	−15		+53.1	

Sources: BREMA; Ministry of Aviation; HM Customs & Excise.

Table 6. Transistor radios
('000's)

	UK manufacturers' home sales[a]	Imports[b]	UK manufacturers' exports[a]
1959	490	n.a.	7
1960	1,135	n.a.	50
1961	2,162	246	94
1962	2,247	529	83
1963	2,340	1,507	95
1964 (Jan-June)	894	733	25

[a] excluding transistor car radios
[b] including transistor car radios

Source: BREMA estimates; HM Customs and Excise.

• • •

Distribution

Radios are distributed either direct to the retailer from the manufacturer, or via a wholesaler. The standard retail margin is 33⅓ per cent of the final retail price, less purchase tax. This applies to both direct and indirect distribution, and in the case of the latter the additional wholesale margin is 15 per cent of the retail price less tax. Apart from these margins, which are standard throughout the trade, there are additional discounts for early settlement and for large deliveries. The current level of purchase tax is 25 per cent of the "wholesale value": this is an excise value normally equal to the wholesale price, but imputed to the merchandise by HM Customs and Excise where no wholesaler is in fact involved.

The larger groups use both methods of distribution. They incorporate several originally independent manufacturers. The products of a particular group in the same price bracket but sold under different brands usually differ only marginally—for example in surface design of the cabinet. Thus in the STC group Kolster-Brandes radios go direct to retailers, while Regentone radios are sold to wholesalers. Since these are all products of the same group—the names of formerly independent companies like Kolster-Brandes, or Regentone may conveniently be termed brand names.

This dual system of distribution enables the manufacturer to maintain control of the distributive channels through the appointed dealers, to whom he gives exclusivity in a certain area. At the same time it achieves wide coverage of all outlets by supplying wholesalers. The advantages of the appointed dealer system are that the manufacturer can limit the number of competitive products stocked by the retailer, and influence the in-store merchandising of his products—especially important in the case of window display space. Further, the manufacturer ensures adequate servicing of

his products by demanding a minimum level of service facilities from stockists.

The necessity for wide coverage of the retail market is shown by the large number of non-specialist shops which stock radios. In 1961 only 61 per cent of radio and television stockists were specialists—the others included furniture shops, grocers, confectioners, general stores and department stores (Census of Distribution 1961, Part 1). Altogether 19,366 shops were recorded as selling radios and televisions in 1961. The multiplicity of radio stockists is confirmed by our consumer research (table E—source of supply of radio sets). Specialist radio and electrical shops supplied 61 per cent of all radios in use, and 9 per cent of sets were gifts, a proportion of which presumably came from these shops. The next most important source is department stores, which supplied 7 per cent of radios in use, and other less important sources of supply included furniture shops, co-operatives, trade connections, and mail order.

At present an estimated 70-80 per cent of radios are supplied direct; the remainder pass through wholesalers. Several industry sources predict that this ratio will change fundamentally within a few years. It is believed that manufacturers will supply direct to an ever increasing number of outlets in order to meet competition from imports. If this happens it will break down the system of exclusive appointed dealers and at the same time take business from the wholesalers who will be bypassed.

An end to resale price maintenance would reinforce this trend and probably increase the current level of price cutting. Some industry spokesmen believe that RPM will be abolished despite the manufacturers' application for exemption. It is emphasised, however, that increased competition in radio distribution is already noticeable and an end to RPM will not initiate a new process. The increase in the number of radio stockists has been apparent for some

years, and price competition already exists. Imported models are not subject to price maintenance agreements, and are therefore particularly suited to discount store operations, while flexibility of trade-in allowances provides some price competition on UK manufactured models.

It is reasonable to forecast a number of developments: a greater variety of outlets stocking radio sets, pressure on margins; the elimination of some marginal stockists even with the continuation of RPM. But if it is abolished there is likely to be a greater number of discount houses selling radios, and consequently more pressure on margins.

* * *

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 33

* * *

ZENITH RADIOS AND STEREO APPEAL TO QUALITY TRADE

[Picture omitted]

Introducing the US Zenith range to Britain at a trade press review last week were (left) A. R. Ramsay, managing director, and (right) D. C. Spink, sales manager, of the United Mercantile Co., main distributors for Zenith in the UK.

Radios and stereo equipment made in the USA by the Zenith Radio Corporation are now being offered to British dealers—the first big agency arrangement to be completed since the lifting of import restrictions.

Prices are above the level of home-produced lines. Miniature transistor portables, for instance, are listed at £32 upwards. Stereo record players and stereo radiograms range from £95 (a portable) to over £500.

Zenith concentrates on highclass equipment and the marketing policy is to appeal to quality trade through selected specialist dealers. Distribution is direct to the retailer. Applications for inclusion on the dealers' list are invited.

Sole distributors in the UK are the United Mercantile

Company with offices and showrooms at Park Lodge, Park Close, Knightsbridge, London SW1 (Knightsbridge 2135).

Managing director of the British agency is A. R. Ramsay. Don C. Spink, formerly of Pilot and English Electric, has been appointed sales manager.

Servicing is to be handled, under contract, through central agents.

A full service of dealer display ads is available.

First introductions are two miniature transistor portables retailing at £32 and £37 10s., two transistor clock radios at £44 9s. 8d. and £93 18s. 11d., an AC/DC battery portable at £91 6s. 9d., an AC clock radio at £31 12s. 11d. and a comprehensive 9-transistor Trans-Oceanic portable with many novel features at £175 9s. 6d.

• • •

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 34

WIRELESS AND ELECTRICAL TRADER
22 August 1959

ZENITH GO FOR THE QUALITY MARKET

Selective Appointment of Dealers

As foreshadowed last week, the Zenith Radio Corporation of America are entering the British market by introducing here a wide range of transistor sets, including pocket radios, portables and battery-operated clock receivers. At present only radio models are being marketed, but large stereophonic high fidelity reproducers will be available on firm order at short notice.

Marketing in the United Kingdom is in the hands of the main distributors, United Mercantile Co. Ltd., Park Lodge, Park Close, S.W.1 (phone Knightsbridge 2135 and Kensington 6925). The managing director, A. R. Ramsay, has returned recently from the United States where final decisions on planning and marketing were made. D. C. Spink has been appointed sales manager and will be handling all aspects of distribution and sales in this country.

Selected dealer appointments are now being made. In due course a national advertising campaign will commence with full pages in the better-type magazines.

The models are of a high standard of workmanship and are intended for the more selective buyers. Pocket radios are from £32, clock radios from £31 12s. 11d. up to £92 18s. 11d., and a unique transistor portable communication receiver lists at £175 9s. 6d. For details see "New Products".

D. C. Spink said that comprehensive servicing arrangements were being made, and dealerships were being carefully selected. "We are going after the quality market which is something that too many dealers have forgotten about in recent years", he commented.

• • •

Mallory Batteries Ltd., Rainham Road South, Dagenham ('phone: Dominion 2111) are making available here the Mallory mercury cell RM502 for use with the Zenith transistorized models.

• • •

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 37
2—EVENING STANDARD,
Thursday, October 25, 1962

• • •

By WILLIAM DAVIS, *City Editor*
43, Moorgate, E.C.2 London Wall 7311

• • •

ZENITH SUCCESS

A "gee-whiz" success for Zenith, the American radio and television firm which introduced a new gramophone micro-touch tone arm last August.

Demand, says the distributing firm, United Mercantile, has been "quite fantastic" and difficulties caused by the dock strike on the Atlantic Coast have now been overcome.

Mr. Adam Ramsay, who founded United Mercantile three

years ago specially to import Zenith products, tells me that when the new TV systems are introduced he will be bringing in Zenith 625-line TV sets and colour TV sets.

Mr. Ramsay said today: "Zenith is probably larger than the entire British radio and television industry. Selling its products here has been hard going, because of the high purchase tax.

"Zenith products are expensive, because it has always aimed at the quality market. At present, I have no intention of making United Mercantile a public company—we have enough capital for current needs."

Zenith is known as the "gee-whiz" firm on Wall Street: £350 invested in its shares in 1935 would be worth £700,000 today!

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 38
RADIO RETAILING
Vol. XIV No. 6
September 1959

• • •

ZENITH COMES TO U.K.

High Grade Transistor Sets Are First Imports

At a trade press reception held at the headquarters of United Mercantile Co. Ltd., in London, it was announced that stocks of the 1960 radio receivers made by the Zenith Radio Corporation of Chicago will in future be freely available for sale in the United Kingdom.

Distribution is in the hands of United Mercantile and D. C. Spink, well known in the trade, has been appointed Sales Manager.

Zenith products in the U.S.A. are well recognised as of a high standard of quality and design, and distribution in this country is being planned accordingly. Mr. Spink is busy at present selecting specialist dealers to carry his products. Special attention is being paid to the problems of servicing and adequate stocks of spares will be brought into the country.

The initial range includes a number of transistor receivers, including pocket, portable and clock types.

A full range of dealers aids and point of sale displays are available.

"In due course we shall extend our range for the U.K.," said Mr. Spink. *"Very soon we shall have our high fidelity stereophonic equipment on offer."*

Mr. A. R. Ramsay, Managing Director of United Mercantile, who has recently been for some time in the U.S.A. studying marketing problems, told our representative, "We shall keep a very close watch on the U.K. market, so that as the situation warrants it we can bring in more Zenith products. At the moment we are waiting to see what the Government's decision will be regarding the third TV channel before we commit ourselves on importing TV receivers."

[Picture omitted]

D. C. Spink, Sales Manager and A. R. Ramsey, Managing Director at the recent introduction of Zenith Radio.

The advent of Zenith in this country underlines the prosperity of the industry and may be considered as a sign that the days of austerity are definitely gone.

Enquiries amongst British representatives of prominent American radio manufacturers showed no others planning to take similar advantage of recent relaxations of Treasury currency restrictions.

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 40

TELEVISION MODEL K.3345 CHASSIS 16K23QS

Object:

To render 45 M/c 625 line T.V. suitable experimentally for reception of Channel 1 (45M/c) and Channel 9 (194 M/c) 405 line transmissions. Facilities including single operation of system switch for I.F. response, horizontal and vertical outputs, sound and various H.T. alterations.

Work Completed:

A. Alteration of 45 M/c I.F. to 38 M/c (Intercarrier sound 4.5 M/c to 6.0 M/c already completed). All I.F.'s were replaced with suitable 38 M/c coils with associated trap coils for British 625 line system. In order to present an I.F. response approximately correct for 405 line system the following I.F. coils were added.

(i) One 38.15 M/c coil series tuned from pin 2 of V4 to ground. (This ultimately was switched at the grid end to remove sound from vision I.F. 405).

(ii) One 3.5 M/c coil parallel tuned in series with the video detector output signal to the video amplifier. (This is also switched in and out of circuit as required to remove Vision/Sound beat pattern on screen).

B. Detector: The output and ground lead from the video detector coil unit were removed and connected to a DPDT switch in order to alternatively accept positive or negative inputs. Some loss of frequency response is apparent but it produced an acceptable picture.

The addition of partial AC coupling from video detector to video amplifier was found to be desirable due to the relationship of the sync. pulses to the black level on 405 lines (low amplitude). See attached schematic of switching.

C. Sound: The 38.15 M/c sound channel was tapped off the tuner output and fed to a separate I.F. channel. The permanent connection of the take-off point had no noticeable effect on the picture, 405 or 625. See attached schematic.

The output from this sound I.F. channel was amplified in a single triode amplifier and fed through change-over switching to existing sound output stage.

D. Horizontal output: It was found that 4400 MMF with a 750 mmf variable across the horizontal oscillator coil (L.13) was correct for operation at 10.125 kc/s. No other modification was found to be necessary. The efficiency of

this stage was apparently quite high at lower frequencies (slight reduction of boost voltage was observed).

E. Vertical output: The frequency being identical to the 625 system (British) the only modification required was a parallel vertical size control switched in in place of the existing control and adjusted accordingly. (Loss of vertical size due to reduced boost voltage). Vertical linearity changed but was acceptable.

F. B+ Alterations: The only switching necessary was to supply the sound I.F. with voltage on 405 lines.

General Observations:

The resulting 405 display was acceptable but not 100%. Visable defects are a poor H.F. response (2 M/c+) in the vision channel due possibly to the method of switching the detector polarity: a sync. fault manifests itself when a black object leaves the screen on the right-hand side, whereby the picture is shifted to the left over an area according to the size of the displayed object.

Probable cause: Incorrect time constants in the sync. clipper or horizontal control circuits. (This defect is not apparent and can be cured somewhat by the feeding back of a signal from the anode of the horizontal oscillator to the sync. clipper anode through a resistor value 100K)

The general level of contrast is lower than that of 625 the cause being excessively wide I.F. response for 3 M/c of video where gain is wasted beyond this.

Considering the amount of modification necessary to produce an acceptable picture this system has possibilities. The performance of the receiver remains to be seen in a variety of fields. Enclosed is a schematic of the resulting I.F. response superimposed upon the original 625 response.

N.B. It was found impossible to use the 'Space Command' unit with the 405 lines system as the 4th harmonic of the line oscillator triggered the various control channels.

Physical Switching Arrangement:

Two banks of multi-way switches were employed, mechanically connected with a system of levers. Both were located under the chassis—one (a) under the bases of the I.F. valves and the other (b) beneath the Horizontal oscillator and control circuitory.

A) This switch changed the detector polarity and the insertion and removal of the sound I.F. trap.

B) The Horizontal and Vertical circuits, sound changeover and B+ switching was accommodated in this switch bank.

The switches are of the two-way sliding type employed for their many switch positions. In this experimental form, numerous contacts were not used. See accompanying photograph.

[Drawings Attached]

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 41

AR/mg PROGRESS REPORT No. 1 3rd July 1959

1. *Marketing*—Preparations are being very actively pursued regarding marketing. After long conversations with people in the trade, it has been decided to limit the distribution to only very high-class stores, Hi-Fi dealers, and high quality radio dealers.
2. *Personnel*—Within the next few days, we are appointing, on a probationary period of three months, a Sales Manager, Mr. D. C. Spink.

   Mr. Spink was, for many years, Assistant Sales Manager with General Electric, and lately, Sales Manager of Pilot Radios until Pilot Radios were taken over by Ultra Electric. The probationary period with Mr. Spink is based on a target to be achieved within the next three months. The figures of the target to be agreed will be communicated to you later.
3. *Publicity*—We have appointed* Messrs. Gerrard Limited

---

* Not yet; still pending.

to be our Publicity Agents, and they are preparing now a scheme to cover the next six months. An exact report in this respect will be sent to you very shortly. The difficulty which we are experiencing is the question of art work, as, unfortunately, the type of advertisement used in the United States is not suitable for the high class product in the United Kingdom. We wonder whether your Art Department has not got any art work in its possession which could be useful to us.

Price Lists and all kinds of stationery are being printed now, and will be sent to you shortly. Also letters advising dealers that Zenith Radios are again available in the United Kingdom are being prepared, and as soon as catalogues are received from you, will be sent out initially to approximately 750 leading dealers and stores in the United Kingdom.

4. Private Enquiries, which we have received through your offices are being dealt with.
5. *General Display*—Arrangements are being made to have in all leading Hotels in London show cases displaying Zenith Radios.

4th August. 1959

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 42

PROGRESS REPORT—NO. 2.

1) *Marketing:*

As from the 28th July, the date the goods were received, we started to make our first deliveries to Dealers.

Up to now, eight Dealers have been appointed and appointments are progressing.

Enclosed is a list of Dealers in various districts in London.

2) *Sales Promotion:*

On the 13th instant there will be a Press Conference with a Cocktail Party for Trade and National Press representatives.

A complete range carried in London of Zenith goods will be displayed and the Press will be issued with Press Information Sheets as well as photographs of every available model.

From the 25th August to the 5th September, which is the time of the National Radio Show, we shall be having a permanent and very attractive display of Zenith goods on one floor of our building and buyers from all over the Country will be shown around and entertained.

3) *Publicity in August 1959:*

Only publicity in trade papers will appear, as follows:

15th August. "WIRELESS TRADER"— double page, featuring—250, 850 and 1000D.

"RADIO & ELECTRICAL TRADING" — full page, featuring 250, 850 and 1000D.

22nd August. "WIRELESS TRADER"—double page, featuring—1000D and B600.

"RADIO & ELECTRICAL TRADING" — full page, featuring 1000D and B600.

29th August. (Radio Show numbers)

"WIRELESS TRADER"—single page

"RADIO & ELECTRICAL TRADING"— single page, featuring: "Come to Knightsbridge to see the Zenith range".

Plans are made now for advertising in September and these advertisements will be devoted to three classes of media:

a) Trade

b) General (magazines and newspapers)

c) Specialised (Yachting and Flying)

We are now planning the release of the 500E introduction as well as the 760 for September, but the final decision will be taken as soon as we know when the first supplies will be available.

4) *Private Enquiries:*

All private enquiries are being attended to immediately.

5) *General Display:*

This week Zenith radio sets will be displayed in Harrods, which is the leading British Store if not the leading store in the World, and in Selfridges; from the 17th August in Keith Prowse in Bond Street and Coventry Street.

We shall endeavour to make photographs of the windows for your perusal.

Encl.

4th August, 1959

LIST OF APPOINTED DEALERS

Messrs. Silver's Electric,
70. Commercial Street,
LONDON. E.1.
Messrs. Regent Radio, Ltd.
16. York Street,
ST. HELIER,
Jersey. C.I.
Messrs. Mayfair Electric Ltd.
2. Shepherd Street,
Shepherd Market,
LONDON. W.1
Messrs. Piccadilly Radio,
169. Piccadilly,
LONDON. W.1
Messrs. Troughton & Young (Lighting) Ltd.
143. Knightsbridge,
LONDON. S.W.1.
Messrs. Selfridges. Ltd.,
Oxford Street,
LONDON. W.1.
Messrs. Express Radio & Television,
127. Clapham Park Road,
LONDON. S. W. 4.
Messrs. Harrods Ltd.,
Knightsbridge,
LONDON. S. W. 1.

ZENITH RADIO CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill., U.S.A.

Invoice No. X 29761A
Invoice Date 6/26/59

Marks: U.M.C. London #1/Up

SOLD To United Mercantile Co. Ltd.
Park Lodge
Park Close
London S.W. 1, England

Shipped To Wm. H. Muller Shipping Corp.
25 Broadway
New York N.Y.

Terms: Net Cash F.O.B. Factory Chicago
CIA $15000.00 rec'd

Our Order No.	Your Order No.	Date Shipped	Via
EO 26134	6/17-Verbal	6/26/59	Lifschultz Collect

Quantity	Model	Description	Net Per Unit	Total
35	R250L	Radios 6 Transistors	25.57	849.95
30	R250W	" " "	25.57	767.10
35	R250Y	" " "	25.57	894.95
15	R275B	" 7 "	29.97	449.55
10	R275J	" " "	29.97	299.70
25	R275Y	" " "	29.97	749.25
55	R850C	" " "	35.54	1954.70
41	R850L	" " "	35.54	1457.14
54	R850W	" " "	35.54	1919.16
100	R675L	" 6 "	29.97	2997.00
10	B600	" 5 Tube	71.57	715.70
10	S15715	Ballast Adaptor	1.50	15.00
10	Z-230X	Batteries	4.34	43.40
2	R1000D	Radios 9 Transistors	140.25	280.50
2	DPS80C	Portable Stereo Phono 5 Tube Sets	74.07	148.14
2	VM-9327	50 Cycle Idler Wheel	.50	1.00
1	R950	Clock Radio 7 Transistors	75.00	75.00
10	C5190	Clock Radios 4 Tubes	22.77	227.70
10	C519L	Clock Radios 4 Tubes	22.77	227.70
5	C519W	Clock Radios 4 Tubes	22.77	113.85
25	[Illeg.]	50 Cycle Clock Rotors	.65	16.25
1	95-1317	S.D. Transformer	2.00	2.00
2	95-1287	S.D. Transformer	4.50	9.00
				$14,258.74

Shipped with EP 43931 (R36412)
Excise Tax Exempt (C)

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

Ref.: R/7/59/Spec.
July, 1959

Sales Information Bulletin

Dealers' Price List of Zenith Radios
Available for Delivery Against Special Orders

Model	Cabinet	Dealers' Price	P/Tax	Retail Price
Fully Transistorised Portables:				
RYL 710L	Leather	21. 15. 9	10. 9. 9	43. 3. 5
RYL 750C	Charcoal-Grey	28. 11. –	13. 14. 10	56. 11. 4
RYL 750L	Leather	28. 11. –	13. 14. 10	56. 11. 4
RYL 760L	Leather	35. –. –	16. 16. 11	69. 6. 11

The above prices do not include batteries

Delivery: approximately 4 weeks from the date of firm order.

Model RYL 500D is completely sold out and will not be available in future. New model RYL 500E will be available as from September 1959. A sales Information Bulletin will be sent shortly to all dealers giving details and prices.

Settlement Terms: 3¾% — 7 days
2½% — 30 days

Models and Prices Are Subject to Change or Withdrawal Without Notice.

All enquiries to Main Distributors for the U.K.:—

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1;
Telephone: KNightsbridge 2135.

Direct Export

[Handwritten note:]
1000 D £114.—
600 B £ 60.—
600 L £ 68.—

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

CONFIDENTIAL
November, 1960.

Sales Information Bulletin

Dealers' Price List of Zenith Radios

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR PORTABLES:					
RYL50Y RYL50C RYL50W RYL50V RYL50L	Black Charcoal/White White Red/White Beige/White	£ 10. 6. 8.	£ 15.10. 0.	£ 4.19. 6.	£ 20. 9. 6.
RYL100C RYL100L RYL100P RYL100W	Charcoal Beige Yellow White	13.15. 7.	20.13. 5.	6.12. 7.	27. 6. 0.
RYL250L RYL250W RYL250Y	Tan White Black	13.15. 7.	20.13. 5.	6.12. 7.	27. 6. 0.
RYL275B RYL275J RYL275Y	Two Tone Blue Two Tone Brown Ebony/Grey	16.19. 3.	25. 8.10.	8. 3. 2.	33.12. 0.
RYL500YE RYL500WE RYL500RE	Black Brick Red/White Maroon	22. 9. –.	33.13. 6.	10.16. 2.	44. 9. 8.
RYL675	Brown Leatherette	18.18. 8.	28. 8. –.	9. 2. 3.	37.10. 3.
RYL710	,, ,,	21.15. 9.	32.13. 8.	10. 9. 9.	43. 3. 5.
RYL755	Brown Leather	28.11. 0.	42.16. 6.	13.14.10.	56.11. 4.
RYL780	Black Leather	35. 0. 0.	52.10. 0.	16.16.11.	69. 6.11.
RYL1000D	Chrome Black	88.11. 4.	132.17. 0.	42.12. 6.	175. 9. 6.
TRANSISTOR CLOCK RADIOS:					
RYL850C RYL850W RYL850L	Charcoal/White White Light Brown/White	22. 9. 0.	33.13. 6.	10.16. 2.	44. 9. 8.
RYL950	Gold	47. 2.11.	70.14. 4.	23. 4. 7.	93.18. 1.

All enquiries to Main Distributors for the U.K.—

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1;
Telephone: KNightsbridge 2135.

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR AM/FM PORTABLES:					
RYL2000	Black/Chrome	£ 58. 0. 0.	£ 87. 0. 0.	£27.18. 3.	£114.18. 3.
AC/DC—BATTERY PORTABLES:					
B600	Black	46. 2. –.	69. 3. 0.	22. 3. 9.	91. 6. 9.
B600L	Brown Leather	52. 2. 0.	78. 3. 0.	25. 1. 6.	103. 4. 6.
AC CLOCK RADIOS:					
C519L C519P C519W	Beige Yellow White	15.19. 5.	23.19. 2.	7.13. 9.	31.12.11.
AC/DC RADIOS:					
F512W F512L F512C	White/Blue Beige/Dark Brown Charcoal/White	10. 1. 4.	15. 2. 0.	4.17. 0.	19.19. 0.
F615L F615B F615C	Beige Blue Charcoal	12.14. 4.	19. 1. 6.	6. 2. 6.	25. 4. 0.
AM/FM TABLE MODELS:					
C724P C724L C724G	Champagne Gold Brown Light Grey	24. 4. 6.	36. 6. 9.	11.13. 3.	48. 0. 0.
C725L C725C	Brown Charcoal	28. 5. 3.	42. 7.11.	13.12. 1.	56. 0. 0.
C730 C730R C730E	Walnut Mahogany Light Oak	32. 6. 0.	48. 9. 0.	15.11. 0.	64. 0. 0.
C835 C835R C835E C835H	Walnut Mahogany Light Oak Cherry	38. 7. 2.	57.10. 9.	18. 9. 3.	76. 0. 0.
C845 C845Y C845M C845L	Dark Walnut Ebony Maple Light Walnut	41. 7. 8.	62. 1. 7.	19.18. 5.	82. 0. 0.

The above Prices do not include Batteries

Models and Prices are subject to change or withdrawal without notice

Settlement Terms:

3¾%— 7 days
2½%—30 days

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO TELEVISION & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

CONFIDENTIAL
January, 1963.

Sales Information Bulletin

Dealers' Price List of Zenith Radios

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR PORTABLES:					
RYL50CK RYL50WK RYL50VK	Charcoal/White White Red/White	£ 9. 4. –.	£ 13.16. –.	£ 2. 4. 3.	£ 16. –. 3.
RYL55C	Charcoal	12.10. –.	18.15. –.	3. –. 2.	21.15. 2.
RYL125C RYL125P RYL125L	Charcoal Primrose Beige	12. 3. 9.	18. 5. 7.	2.18. 8.	21. 4. 3.
RYL500WH de Luxe RYL500YH de Luxe RYL500GH de Luxe	White Black Two Tone Grey	22. 9. –.	33.13. 6.	5. 8. 1.	39. 1. 7.
RYL650L RYL650Y	Tan Black	13. –. –.	19.10. –.	3. 2. 7.	22.12. 7.
RYL675LG	Dark Brown	16.19. 3.	25. 8.10.	4. 1. 8.	29.10. 6.
RYL710LG	Dark Brown	21.15. 9.	32.13. 8.	5. 4.10.	37.18. 6.
RYL755LK	Brown Leather	24. 5. –.	36. 7. 6.	5.16. 9.	42. 4. 3.
RYL780YG	Black Leather	29.10. –.	44. 5. –.	7. 2. –.	51. 7. –.
RYL790YG	Black Leather	35. –. –.	52.10. –.	8. 8. 5.	60.18. 5.
RYL1000D	Black/Chrome	88.11. 4.	132.17. –.	21. 6. 3.	154. 3. 3.
RYL1000D (export only)	,, ,,	75. –. –.	100. –. –.	–.	–
RYL3000	Black/Chrome	88.11. 4.	132.17. –.	21. 6. 3.	154. 3. 3.
RYL3000 (export only)	,, ,,	75. –. –.	100. –. –.	–.	–
TRANSISTOR AM/FM PORTABLES:					
RYL880L RYL880Y	Brown Black	31. –. –.	46.10. –.	7. 9. 2.	53.19. 2.
RYL2000	Black/Chrome	58. –. –.	87. –. –.	13.19. 2.	100.19. 2.

All enquiries to Sole Main Distributors for the U.K.:—

United Mercantile Co. Ltd., 13/14 Queen Street, Mayfair, London, W.1., GRO 4901/3.

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
AC/DC—BATTERY PORTABLE:					
B600	Black	£ 46. 2. –.	£ 69. 3. –.	£11. 1.10.	£ 80. 4.10.
AC RADIOS:					
F512C	Charcoal/White	10. 1. 4.	15. 2. –.	2. 5. 6.	17. 7. 6.
AM/FM CLOCK RADIO:					
J727W	Ivory	24. 5. –.	36. 7. 6.	5.16. 9.	42. 4. 3.
AM/FM TABLE MODELS:					
C724P C724L C724G	Champagne Gold Brown Light Grey	24. 4. 6.	36. 6. 9.	5.16. 7.	42. 3. 4.
C730 C730B C730E	Walnut Mahogany Light Oak	32. 6. –.	48. 9. –.	7.15. 5.	56. 4. 5.
C835 C835B C835E C835H	Walnut Mahogany Light Oak Cherry	38. 7. 2.	57.10. 9.	9. 4. 7.	66.15. 4.
C845 C845Y C845M C845L	Dark Walnut Ebony Maple Light Walnut	41. 7. 8.	62. 1. 7.	9.19. 2.	72. –. 9.

The above Prices do not include Batteries

Models and Prices are subject to change or withdrawal without notice

Settlement Terms: 3¾%— 7 days
2½%—30 days

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 47E

NEW PRICES

We beg to advise you that as from the 15th October, 1962 the following new prices will apply:

		Dealers	P/Tax
Royal	400		
Royal	500E		
MP	505	139.11. 3.	60. 9. –.
MH	2685	240. –. –.	103.19. –.
MH	2670	215. –. –.	93. 2. 5.
MH	2635	175. –. –.	75.15.11.
SP	2505	130. –. –.	56. 6. 2.

Subject to 3¾% each
Discount (7 days)

Our Micro-Touch tone arm and cartridge not only cannot scratch a record, but it gives as much as 100 per cent more stereo separation and up to 100 per cent more compliance than so far provided in any commercial record player.

It brings a new adventure in sound reproduction, and I have no doubt that within a few years this further Zenith "First" will be accepted by the public at large as something quite usual. The present arms and cartridges that can cause scratches will be obsolete and laughed at.

Now for a brief word about TV: as you know, it is anticipated that shortly the British TV System will be switching to CCIR 625 line system and [Co]ntinued . . . .

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 47F

LIST OF ZENITH RADIOS AVAILABLE IN U.K. OCTOBER 1962

Model	Retail Price inc. P/Tax	Model	Retail Price inc. P/Tax
Royal 50	£ 17.15. 8.	Royal 1000D	£171. 4. 3.
" 55	24. 3. 3.	" 1000D (Export only)	100. —. —.
" 125	23.11. 2.	" 2000	112. 2. 5.
" 400	32.15. 9.	" 950	91. 2. 9.
" 500E	36.14. 7.	" 3000	171. 4. 3.
" 500H de Luxe	43. 8. —.	" 3000 (Export only)	100. —. —.
* " 650	25. 2. 7.	B 600	89. 2. 4.
* " 675LG	32.15. 9.	F 512	19. 9. 2.
* " 710LG	42. 2. 5.	J 727	46.17. 7.
* " 755LG	46.17. 7.	C 724	46.16. 7.
" 780LG	57. —. 6.	C 730	62. 8.10.
" 790	67.13. 2.	C 835	74. 3. 1.
" 880	59.18. 7.	C 845	80. — 1.

Models marked * can have additionally a pre-set position for Long Wave reception of Light Programme for use in areas where reception on Medium Wave is difficult.

PRICE LIST OF ZENITH STEREOPHONIC EQUIPMENT

Record Players	Retail Price inc. P/Tax
Model KPS 80	£106. 6. 5.
" *ST 1950	193. 6. 3.
" *SK 2501	193. 6. 3.
" *SK 2502	222. 6. 2.
" *SK 2506	241.12.10.
" *ST 1970	260.19. 5.

RADIOGRAMS WITH AM/STEREO FM RADIO

Model MP 505	(Exclusive to Harrods Ltd.)	338. 5.11.
" MK 2608		386.12. 6.
" MK 2635		483. 5. 8.
" MK 2670		541. 5. 6.
" MK 2675		541. 5. 6.
" MK 2685	Cherry	560.12. 2.
" MK 2685	Antique White & Gold	

Models marked* can be fitted optionally with AM/FM radio at additional cost of £52.13.11. inc. P/Tax and/or Sound Reverberation at a cost of £33.12. –.

We regret that for the time being our combined Television/Radiogram units cannot be used in the U.K. until the system of television transmission is changed to 625 lines.

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

CONFIDENTIAL
November, 1962

Sales Information Bulletin

Dealers' Price List of Zenith Radios

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR PORTABLES:					
RYL50CK RYL50WK RYL50VK RYL50LK	Charcoal/White White Red/White Beige/White	£ 9. 4. –.	£ 13.16. –.	£ 3.19. 8.	£ 17.15. 8.
RYL55C	Charcoal	12.10. –.	18.15. –.	5. 8. 3.	24. 3. 3.
RYL125C RYL125P RYL125L	Charcoal Primrose Beige	12. 3. 9.	18. 5. 7.	5. 5. 7.	23.11. 2.
RYL400Y RYL400W RYL400F RYL400J	Black White Two Tone Green Two Tone Brown	14. –. –.		6. 1. 3.	Free
RYL500WE RYL500RE RYL500YE	White/Coral Maroon/Gold Black/Gold	16. –. –.		6.18. 7.	Free
RYL500WH de Luxe RYL500YH de Luxe RYL500 GH de Luxe	White Black Two Tone Grey	22. 9. –.	33.13. 6.	9.14. 6.	43. 8. –.
RYL650L RYL650Y	Tan Black	13. –. –.	19.10. –.	5.12. 7.	25. 2. 7.
RYL675LG	Dark Brown	16.19. 3.	25. 8.10.	7. 6.11.	32.15. 9.
RYL710LG	Dark Brown	21.15. 9	32.13. 8.	9. 8. 9.	42. 2. 5.
RYL755LK	Brown Leather	24. 5. –.	36. 7. 6.	10.10. 1.	46.17. 7.
RYL780YG	Black Leather	29.10. –.	44. 5. –.	12.15. 6.	57. –. 6.
RYL790YG	Black Leather	35. –. –.	52.10. –.	15. 3. 2.	67.13. 2.
RYL1000D	Chrome/Black	88.11. 4.	132.17. –.	38. 7. 3.	171. 4. 3.
RYL1000D (export only)	" "	75. –. –.	100. –. –.	–	–
RYL3000	Chrome/Black	88.11. 4.	132.17. –.	38. 7. 3.	171. 4. 3.
RYL3000 (export only)	" "	75. –. –.	100. –. –.	–	–

All enquiries to Main Distributors for the U.K.:—

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1;
Telephone: KNightsbridge 2135.

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR CLOCK RADIO:					
RYL950	Gold	£ 47. 2.11.	£ 70.14. 4.	£20. 8. 5.	£ 91. 2. 9.
TRANSISTOR AM/FM PORTABLES:					
RYL880L RYL880Y	Brown Black	31. –. –.	46.10. –.	13. 8. 7.	59.18. 7.
RYL2000	Black/Chrome	58. –. –.	87. –. –.	25. 2. 5.	112. 2. 5.
AC/DC—BATTERY PORTABLE:					
B600	Black	46. 2. –.	69. 3. –.	19.19. 4.	89. 2. 4.
AC RADIOS:					
F512L F512C	Beige/Dark Brown Charcoal/White	10. 1. 4.	15. 2. –.	4. 7. 2.	19. 9. 2.
AM/FM CLOCK RADIOS:					
J727W J727F J727C	Ivory Tarragon Green Briar Brown	24. 5. –.	36. 7. 6.	10.10. 1.	46.17. 7.
AM/FM TABLE MODELS:					
C724P C724L C724G	Champagne Gold Brown Light Grey	24. 4. 6.	36. 6. 9.	10. 9.10.	46.16. 7.
C730 C730R C730E	Walnut Mahogany Light Oak	32. 6. –.	48. 9. –.	13.19.10.	62. 8.10.
C835 C835R C835E C835H	Walnut Mahogany Light Oak Cherry	38. 7. 2.	57.10. 9.	16.12. 4.	74. 3. 1.
C845 C845Y C845M C845L	Dark Walnut Ebony Maple Light Walnut	41. 7. 8.	62. 1. 7.	17.18. 6.	80. –. 1.

The above Prices do not include Batteries

Models and Prices are subject to change or withdrawal without notice

Settlement Terms: 3¾%— 7 days
2½%—30 days

PRICE LIST OF ZENITH STEREOPHONIC EQUIPMENT

RECORD PLAYERS.	£ s. d.	
Model HPS 50	77 2 4	inc. P/Tax
" HPS 80	97 8 2	"
" *SFH 2502T	202 18 9	"
" *SFH 2503T	233 7 7	"
" *SFH 2504T	243 10 6	"
" *SFH 2505T	294 5 2	"
" *SFH 2515T	355 2 10	"

RADIOGRAMS WITH AM/STEREO FM RADIO		
Model MH 2635	405 17 6	"
" MH 2615	426 3 4	"
" MH 2670	487 1 0	"
" MH 2675	519 10 5	"
" MH 2685	539 16 3	"

Models marked * can be fitted optionally with AM/FM radio at additional cost of £55 6s. 3d. inc. P/Tax and/or Sound Reverberation at a cost of £33 12s. 0d. inc. P/Tax.

We regret that for the time being our combined Television/Radiogram units cannot be used in the U.K. until the system of television transmission is changed to 625 lines which is now under consideration.

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

Sales Information Bulletin

CONFIDENTIAL
2nd October 1961

Dealers' Price List of Zenith Radios

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR PORTABLES:					
RYL50Y RYL50C RYL50W RYL50V RYL50L	Black Charcoal/White White Red/White Beige/White	£ 10. 6. 8.	£ 15.10. –.	£ 5. 9. 6.	£ 20.19. 6.
RYL55C	Charcoal	14. 6. 5.	21. 9. 4.	7.11. 5.	29. –. 9.
RYL150W RYL150F RYL150L	White Green Beige	12. 3. 9.	18. 5. 7.	6. 9. 2.	24.14. 9.
RYL400Y RYL400W RYL400F RYL400J	Black White Two tone Green Two tone Brown	16.19. 3.	25. 8.10.	8.19. 6.	34. 8. 4.
RYL500WE RYL500RE RYL500YE	White/Coral Maroon/Gold Black/Gold	19. –. –.	28.10. –.	10. 1. 2.	38.11. 2.
RYL500WH de Luxe RYL500YH de Luxe RYL500GH de Luxe	White Black Two tone Grey	22. 9. –.	33.13. 6.	11.17. 9.	45.11. 3.
RYL675LG	Dark Brown	16.19. 3.	25. 8.10.	8.19. 6.	34. 8. 4.
RYL710LG	Dark Brown	21.15. 9.	32.13. 8.	11.10. 9.	44. 4. 5.
RYL755LG	Brown Leather	24. 5. –.	36. 7. 6.	12.16. 9.	49. 4. 3.
RYL780LG	Black Leather	29.10. –.	44. 5. –.	15.12. 4.	59.17. 4.
RYL1000D	Chrome Black	88.11. 4.	132.17. –.	46.17. 9.	179.14. 9.
RYL1000D (export only)	Chrome Black	75. –. –.	100. –. –.	–	–

All enquiries to Main Distributors for the U.K.—

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1;
Telephone: KNightsbridge 2135.

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR CLOCK RADIOS:					
RYL850C RYL850W RYL850L	Charcoal/White White Light Brown/White	£ 17. –. –.	£	£ 9. –. –.	£
RYL950	Gold	47. 2.11.	70.14. 4.	25.11. 1.	96. 5. 4.
TRANSISTOR AM/FM PORTABLE:					
RYL2000	Black/Chrome	58. –. –.	87. –. –.	30.14. 1.	117.14. 1.
AC/DC—BATTERY PORTABLE:					
B600	Black	46. 2. –	69. 3. –.	24. 8. 1.	93.11. 1.
AC CLOCK RADIOS:					
C519L C519P C519W	Beige Yellow White	15.19. 5.	23.19. 2.	8. 9. 1.	32. 8. 3.
AC RADIOS:					
F512L F512C	Beige/Dark Brown Charcoal/White	10. 1. 4.	15. 2. –	5. 6. 8.	20. 8. 8.
AM/FM TABLE MODELS:					
C724P C724L C724G	Champagne Gold Brown Light Grey	24. 4. 6.	36. 6. 9.	12.16. 7.	49. 3. 4.
C725L C725C	Brown Charcoal	28. 5. 3.	42. 7.11.	14.19. 3.	57. 7. 2.
C730 C730R C730E	Walnut Mahogany Light Oak	32. 6. –.	48. 9. –.	17. 2. 1.	65.11. 1.
C835 C835R C835E C835H	Walnut Mahogany Light Oak Cherry	38. 7. 2.	57.10. 9.	20. 6. 2.	77.16.11.
C845 C845Y C845M C845L	Dark Walnut Ebony Maple Light Walnut	41. 7. 8.	62. 1. 7.	21.18. 3.	83.19.10.

The above Prices do not include Batteries

Models and Prices are subject to change or withdrawal without notice

Settlement Terms: 3¾%—7 days
2½%—30 days

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

Sales Information Bulletin

27th July, 1961

Dealers' Price List of Zenith Radios

Model		Dealers' Price	List Price	P/Tax	P/Tax Surcharge	New Retail Price
Royal	50	£10. 6. 8.	£ 15.10. –.	£ 4.19. 6.	£–.10. –.	£ 20.19. 6.
,,	55	14. 6. 5.	21. 9. 4.	6.17. 8.	–.13. 9.	29. 0. 9.
,,	150	13.15. 7.	20.13. 5.	6.12. 7.	–.13. 3.	27.19. 3.
,,	250	13.15. 7.	20.13. 5.	6.12. 7.	–.13. 3.	27.19. 3.
,,	275	16.19. 3.	25. 8.10.	8. 3. 2.	–.16. 4.	34. 8. 4.
,,	500E	22. 9. –.	33.13. 6.	10.16. 2.	1. 1. 7.	45.11. 3.
,,	675	16.19. 3.	25. 8.10.	8. 3. 2.	–.16. 4.	34. 8. 4.
,,	710	21.15. 9.	32.13. 8.	10. 9. 9.	1. 1. –.	44. 4. 5.
,,	755	28.11. –.	42.16. 6.	13.14.10.	1. 7. 6.	57.18.10.
,,	780	35. –. –.	52.10. –.	16.16.11.	1.13. 8.	71. –. 7.
,,	850	22. 9. –.	33.13. 6.	10.16. 2.	1. 1. 7.	45.11. 3.
,,	950	47. 2.11.	70.14. 4.	23. 4. 7.	2. 6. 5.	96. 5. 4.
,,	1000D	88.11. 4.	132.17. –.	42.12. 6.	4. 5. 3.	179.14. 9.
,,	2000	58. –. –.	87. –. –.	27.18. 3.	2.15.10.	117.14. 1.
B	600	46. 2. –.	69. 3. –.	22. 3. 9.	2. 4. 4.	93.11. 1.
C	519	15.19. 5.	23.19. 2.	7.13. 9.	–.15. 4.	32. 8. 3.
F	512	10. 1. 4.	15. 2. –.	4.17. –.	–. 9. 8.	20. 8. 8.
F	615	12.14. 4.	19. 1. 6.	6. 2. 6.	–.12. 3.	25.16. 3.
C	724	24. 4. 6.	36. 6. 9.	11.13. 3.	1. 3. 4.	49. 3. 4.
C	725	28. 5. 3.	42. 7.11.	13.12. 1.	1. 7. 2.	57. 7. 2.
C	730	32. 6. –.	48. 9. –.	15.11. –.	1.11. 1.	65.11. 1.
C	835	38. 7. 2.	57.10. 9.	18. 9. 3.	1.16.11.	77.16.11.
C	845	41. 7. 8.	62. 1. 7.	19.18. 5.	1.19.10.	83.19.10.

The above Prices do not include Batteries

Models and Prices are subject to change or withdrawal without notice

Settlement Terms: 3¾%— 7 days
2½%—30 days.

All enquiries to Main Distributors for the U.K.:—

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1;
Telephone: KNightsbridge 2135.

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

Sales Information Bulletin

CONFIDENTIAL
March, 1961

Dealers' Price List of Zenith Radios

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR PORTABLES:					
RYL50Y RYL50C RYL50W RYL50V RYL50L	Black Charcoal/White White Red/White Beige/White	£ 10. 6. 8.	£ 15.10. 0.	£ 4.19. 6.	£ 20. 9. 6.
RYL55C	Charcoal	14. 6. 5.	21. 9. 4.	6.17. 8.	28. 7. –.
RYL100C RYL100L RYL100P RYL100W	Charcoal Beige Yellow White	13.15. 7.	20.13. 5.	6.12. 7.	27. 6. –.
RYL250L RYL250W RYL250Y	Tan White Black	13.15. 7.	20.13. 5.	6.12. 7.	27. 6. –.
RYL275B RYL275J RYL275Y	Two Tone Blue Two Tone Brown Ebony/Grey	16.19. 3.	25. 8.10.	8. 3. 2.	33.12. –.
RYL500YE RYL500WE RYL500RE	Black Brick Red/White Maroon	22. 9. –.	33.13. 6.	10.16. 2.	44. 9. 8.
RYL675	Brown Leatherette	16.19. 3.	25. 8.10.	8. 3. 2.	33.12. –.
RYL710	Brown Leatherette	21.15. 9.	32.13. 8.	10. 9. 9.	43. 3. 5.
RYL755	Brown Leather	28.11. –.	42.16. 6.	13.14.10.	56.11. 4.
RYL780	Black Leather	35. –. –.	52.10. –.	16.16.11.	69. 6.11.
RYL1000D	Chrome Black	88.11. 4.	132.17. –.	42.12. 6.	175. 9. 6.
TRANSISTOR CLOCK RADIOS:					
RYL850C RYL850W RYL850L	Charcoal/White White Lt. Brown/White	22. 9. –.	33.13. 6.	10.16. 2.	44. 9. 8.
RYL950	Gold	47. 2.11.	70.14. 4.	23. 4. 7.	93.18.11.

All enquiries to Main Distributors for the U.K.:—

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1;
Telephone: KNightsbridge 2135.

Model	Colour	Dealers' Price	List Price	P/Tax	Retail Price
TRANSISTOR AM/FM PORTABLES:					
RYL2000	Black/Chrome	£ 58. –. –.	£ 87. –. –.	£ 27.18. 3.	£ 114.18. 3.
AC/DC—BATTERY PORTABLES:					
B600	Black	46. 2. –.	69. 3. –.	22. 3. 9.	91. 6. 9.
B600L	Brown Leather	52. 2. –.	78. 3. –.	25. 1. 6.	103. 4. 6.
AC CLOCK RADIOS:					
C519L C519P C519W	Beige Yellow White	15.19. 5.	23.19. 2.	7.13. 9.	31.12.11.
AC/DC RADIOS:					
F512W F512L F512C	White/Blue Beige/Dark Brown Charcoal/White	10. 1. 4.	15. 2. –.	4.17. –.	19.19. –.
F615L F615B F615C	Beige Blue Charcoal	12.14. 4.	19. 1. 6.	6. 2. 6.	25. 4. –.
AM/FM TABLE MODELS:					
C724P C724L C724G	Champagne Gold Brown Light Grey	24. 4. 6.	36. 6. 9.	11.13. 3.	48. –. –.
C725L C725C	Brown Charcoal	28. 5. 3.	42. 7.11.	13.12. 1.	56. –. –.
C730 C730B C730E	Walnut Mahogany Light Oak	32. 6. –.	48. 9. –.	15.11. –.	64. –. –.
C835 C835B C835E C835H	Walnut Mahogany Light Oak Cherry	38. 7. 2.	57.10. 9.	18. 9. 3.	76. –. –.
C845 C845Y C845M C845L	Dark Walnut Ebony Maple Light Walnut	41. 7. 8.	62. 1. 7.	19.18. 5.	82. –. –.

The above Prices do not include Batteries

Models and Prices are subject to change or withdrawal without notice

Settlement Terms: 3¾%—7 days
2½%—30 days

Promote Zenith Quality

ZENITH—THE WORLD'S FINEST RADIO & STEREOPHONIC EQUIPMENT

The Quality Goes In Before the Name Goes On

Sales Information Bulletin

CONFIDENTIAL
November, 1960

Dealers' Price List of Zenith Stereophonic Equipment

Model	Cabinet	Dealers' Price	List Price	P/Tax	Retail Price
PORTABLE STEREO RECORD CHANGERS:					
DPS50L	Brown-White	£ 30. 5. 7.	£ 45. 8. 5.	£ 14.11. 7.	£ 60. 0. 0.
DPS80C	Charcoal-White	38. 7. 2.	57.10. 9.	18. 9. 3.	76. 0. 0.
CONSOLE STEREO RECORD CHANGERS:					
SFD2501E SFD2501H	Light Oak Cherry	70. 0. 0.	105. 0. 0.	33.13.10.	138.13.10.
SFD2505RT	Mahogany	108. 7. 0.	162.10. 6.	52. 2.10.	214.13. 4.
SFD2505ET SFD2505YT	Light Oak Ebony	111. 6. 0.	166.19. 0.	53.11. 3.	220.10. 3.
CONSOLE STEREO RECORD CHANGERS WITH AM/FM RADIO:					
SFD2530R	Mahogany	144.13. 0.	216.19. 6.	69.12. 3.	286.11. 9.
SFD2535R SFD2535M	Mahogany Maple	153.10. 0.	230. 5. 0.	73.17. 6.	304. 2. 6.
SFD2565R SFD2565M	Mahogany Maple	202. 7. 0.	303.10. 6.	97. 7. 8.	400.18. 2.
SFD2570W	Walnut	226. 4. 0.	339. 6. 0.	108.17. 3.	448. 3. 3.
SFD2575L	Tuscany Walnut	241.13. 0.	362. 9. 6.	116. 5.11.	478.15. 5.
SFD2580R SFD2580H	Mahogany Cherry	257. 0. 0.	385.10. 0.	123.13. 8.	509. 3. 8.
AM/FM TUNER FOR MODEL SFD2505					
	ET10	27. 5. 2.	40.17. 9.	13. 2. 3.	54. 0. 0.

Models and Prices are subject to change or withdrawal without notice

Settlement Terms: 3¾%— 7 days
2½%—30 days

All enquiries to Main Distributors for the U.K.:—
United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1;
Telephone: KNightsbridge 2135.

ZENITH RADIO CORPORATION
6001 W. Dickens Avenue
Chicago 39, Illinois

January 12, 1960

CCIR CONVERSION

All "E" Model Chassis in Service Manual TV—24.
Chassis: 16E20, 16E25, 16E21, 16E27, 18E20.

To convert these models from U.S.A. standards to CCIR Standards; three basic changes must be made.

1. Sound discriminator must be changed from 4.5 to 5.5 Mc. and maximum deviation from 25 to 50 Kc.
2. I.F. acceptance channel must be broadened by 1 Mc.
3. R.F. channels must be shifted from USA to CCIR frequencies.

I. Circuit modifications for I.F. and sound.

a. Remove 35 turns from quadrature coil L-9 in 16E20, L-11 in 16E25, L-12 in 16E21, L-13 in 16E27, L-12 in 18E20.

b. Change capacitor across secondary of intercarrier coil, from 470 uuf to 330 uuf and add a 15,000 ohm, 1/2W. resistor across this capacitor. (This coil is L-8 in 16E20, L-10 in 16E25, L-11 in 16E21, L-12 in 16E27, L-11 in 18E20.)

c. Remove 7 turns from primary and 12 turns from secondary of sound take-off coil. (L-11 in 16E20, L-7 in 16E25, L-7 in 16E21, L-8 in 16E27, L-7 in 18E20.)

d. Change 6BN6 plate resistor from 680 ohms to 1800 ohms.

1. Add a 22,000 ohm, 1/2W. resistor from grid of the first I.F. tube (Pin 1) to I.F. A.G.C. point "E".
2. Change 22,000 ohm, 1/2W. resistor across the primary of T-2, to 12,000 ohms (33,000 to 22,000 on 16E20 and 16E25).
3. Change 8200 ohms, 1/2W. resistor across the secondary of T-3, of 16E25 only, to 5600 ohms. Change 5,600 ohms, 1/2W. resistor across the secondary of T-3, of 16E20 only, to 6,800 ohms.

II. Alignment of video and sound.

A. The alignment procedure appears on pages 7 and 8 of TV-24 with the following exceptions.

1. Substitute 40.25 Mc. for 41.25 Mc.; 41.75 Mc. for 42.75 Mc.; 38.75 Mc. for 39.75 Mc.; and 5.5 Mc. for 4.5 Mc.; wherever they occur.

III. Alignment of Tuners.

A. Alignment of Target (turret) tuner.
Follow procedure for target tuner on pages 9 and 10 of Service Manual TV-24 with modifications noted below.

1. Replace channel strips with those tuned for CCIR channels. Orders must specify picture and sound carrier frequencies and not channel numbers.

B. Conversion of Bulls-Eye tuner to CCIR standards.

1. Remove tuner from bracket and remove cover.
2. Follow procedures for bulls-eye turret tuner alignment on page 10 of Service Manual TV-24 with modifications noted below.
   a. Align each channel strip by spreading or squeezing coils to the CCIR channel frequency using the U:S.A. channel strip closest to CCIR channel.

C. Alignment of Bandswitch tuner.
Follow procedure on page 9 of Service Manual TV-24 with modifications noted below.

1. Remove tuner from the mounting bracket, frame and take-off cover.
2. R.F. plate coil (Mixer) adjustment.
   a. Start with channel selector on channel 13. Adjust RF plate inductance, as indicated in paragraph 4, page 9 of TV-24 so that the 210.25 Mc, video and 215.75 Mc. sound markers fall symmetrically on the response curve.
   Picture carrier should be about 4 Db, maximum below peak of bandpass with cover off tuner. (Where 217.25 Mc.

video carrier is used, set channel 13 to that frequency).

b. Switch to channel 12 and adjust RF coil loop in that section nearer to, or further from switch rotor for proper response using proper CCIR frequencies for the channel.

c. Repeat above for all channels. Observe that channels 12 through 7 use single inductance loops, while channels 6 through 2 use coils. These inductances are in series making it compulsory to align the high frequency channels first.

3. Antenna coil adjustment.

a. Channels 13 through 7 used stamped inductances which cannot be adjusted. Band acceptance is broad and no adjustment is required.

b. Adjust antenna coils on channels 6 through 2, starting with channel 6 and working to the lower frequencies.

4. Oscillator.

a. Use procedure of paragraph 6, page 9; TV-24. Be sure to adjust high frequency channels first. In some cases, it may be necessary to remove completely the adjusting screw on one of the unused channels.

IV. Below is a list of the 12 VHF channels used in the United States with their picture and sound carrier frequencies in Mc. The suggested channels for conversion to CCIR frequencies are also indicated. Channel numbers in different countries may correspond to different frequencies.

U.S. Channel	U.S.A. Video	U.S.A. Sound	CCIR Video	CCIR Sound
2	55.25	59.75	55.25	60.75
3	61.25	65.75	62.25	67.75
4	67.25	71.75	—	—
5	77.25	81.75	—	—
6	83.25	87.75	82.25	87.75
7	175.25	179.75	175.25	180.75
9	187.25	191.75	189.25	194.75
10	193.25	197.75	196.25	201.75
11	199.25	203.75	201.25	206.75
12	205.25	209.75	—	—
13	211.25	215.75	210.25	215.75

Replacement strips for target tuners should be specified by frequency. Channel strips can be shifted in either target or bulls-eye tuners to correspond with knob numbering. No such shift can be done on the bandswitch tuner.

V. Test Equipment.

a. Radio Frequency Sweep Generator covering the desired frequencies with an output of approximately 0.1 volt or more.

b. Oscilloscope having a minimum sensitivity of 1 volt/inch.

c. Oscillator tuning wrench, as indicated on page 4 of TV-24.

d. 50 to 300 ohm matching transformer, cable, and dummy lead shown in Figure 4 of TV-24.

e. Variable frequency generator to mark the frequencies of the picture and sound carrier.

PARTS LIST FOR C.C.I.R. CONVERSION "E" MODEL CHASSIS

Part	Part No.	16E20 B.S.	16E25 B.S.	16E21 & 18E20 Target	16E27 B.S.	16E27 Target	16E27 Bulls' Eye
Condensers							
330 uuf.	22-2667	1	1	1	1	1	1
Resistors							
1,800, 1/2W.	63-1796	1	1	1	1	1	1
15,000, 1/2W.	63-2372	1	1	1	1	1	1
12,000, 1/2W.	63-1831	–	–	–	1	1	1
22,000, 1/2W.	63-2848	2	2	2	1	1	1
5,600, 1/2W.	63-4472	–	1	1	–	–	–
6,800, 1/2W.	63-2842	1	–	–	–	–	–

Sets with target tuners require channel strips specified as to video and sound carrier frequencies in addition to model and chassis number, I.F. frequency, and target tuner part number.

A. Gorbunoff

AG
1-12-60

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 51

ZENITH RADIO CORPORATION

CCIR Conversion

38.9 Mc IF using Special coils
Chassis 16H22, 16H23
Service Manual TV-27

To convert these models from USA to CCIR standards, three basic changes must be made:

1) Sound discriminator must be changed from 4.5 mc. to 5.5 mc. and maximum deviation from 25 Kc to 50 Kc.
2) IF acceptance channel must be broadened by 1 mc. and lowered by 6.85 mc.
3) RF channels must be shifted from USA to CCIR frequencies.

1. Circuit Modification for IF, Video and Sound Discriminator.
   a) Change 6BN6 plate resistor from 680 ohms to 1800 ohms, 1/2W. (63-1796).
   b) Change capacitor (C-30) across secondary of intercarrier coil (L-11) from 470uuf to 330uuf, and add a 15,000 ohm, 1/2W. resistor (63-2372) across this capacitor.
   c) Replace the sound take-off, quadrature, 1st, 2nd, 3rd, and 4th IF coils and trap coils (L-7, L-12, L-1, T-2, T-3, L-3, L-2) with coils wound for the new frequencies.
   d) Change the adjacent channel picture trap dual condenser (C-5) to two separate 15uuf condensers and add a 4.5uuf condenser across the adjacent channel (40.4 mc.) sound trap coil. Change the 10,000 ohm resistor between point "E" and the junction of L-1 and C-5 to 10,000 ohms ± 10% (63-2844) and wire it between point "E" and grid #1 (Pin #2) of the 1st IF tube.
   e) Change the associated sound trap condenser (C-4) from 6.0uuf to 4.0uuf.
   f) Change the adjacent channel sound trap condenser (C-10) from 1.2uuf to 1.5uuf and (C-9) from 8.5uuf to 10.0uuf.
   g) Change the condenser (C-17) across the secondary of the 4th IF (T-4) from 5.5 uuf to 7.0 uuf.
   h) Change the following resistors:
      1) 1st IF plate resistor (R-2) from 10,000 ohms to 6,800 ohms, 1/2W.
      2) Remove the 12,000 ohm, 1/2W. resistor located between the cold side of the secondary of T-3 and chassis. Add a 12,000 ohm, 1/2W. resistor (63-2845) from Pin #2 of the 3rd IF tube to chassis.
   i) Replace video peaking coils L-4 with S-53617, L-8 with S-53618 and L-9 with S-53619.
   j) Change C-24 from 27uuf to 47uuf.
   k) Omit condenser C-26, 10uuf.
   l) Change R-6 from 7500 ohms, 5 W. to 4700 ohms, 5 W.

2. Alignment of Video and Sound IF:

a) The alignment procedure appears on Pages 7 and 8 of TV-27 with the following exceptions:

1) Substitute 31.9 mc. for 39.75 mc.; 33.4 mc. for 41.25 mc.; 34.9 mc. for 42.75 mc.; 40.4 mc. for 47.25 mc.; and 5.5 mc. for 4.5 mc.; 38.15 mc. for 45.0 mc.; 38.9 mc. for 45.75 mc.

3. Tuners:

Conversion of Target, Super Target and Gold Video Guard Tuners to CCIR Standards (38.9 mc. IF)

Following is a list of the 12VHF channels used in the United States with their picture, sound carrier and oscillator frequencies in (M.C.) megacycles. The suggested channels for conversion to CCIR frequencies are also indicated. Channel numbers and channel frequencies will vary in different countries.

U.S. FREQUENCIES				CCIR FREQUENCIES (TYPICAL)		
U.S. Channel	Video	Sound	Osc.	Video	Sound	Osc.
—	—	—	—	48.25	53.75	87.15
2	55.25	59.75	101	55.25	60.75	94.15
3	61.25	65.75	107	62.25	67.75	101.15
4	67.25	71.75	113	—	—	—
5	77.25	81.75	123	—	—	—
6	83.25	87.75	129	82.25	87.75	121.15
7	175.25	179.75	221	175.25	180.75	214.15
8	181.25	185.75	227	182.25	187.75	221.15
9	187.25	191.75	233	189.25	194.75	228.15
10	193.25	197.75	239	—	—	—
11	199.25	203.75	245	196.25	201.75	235.15
12	205.25	209.75	251	201.25	206.75	240.15
13	211.25	215.75	257	210.25	215.75	249.15
—	—	—	—	217.25	222.75	256.15

1) Changes on the tuner chassis:

a) On Target and Super Target Tuners: remove the IF filter on the antenna assembly (C-3, C-4, L-1, L-2 and L-3) and connect a wire from the antenna transformer to the feedthru—(C-2).

a-1) On the Gold Video Guard Tuner: remove the IF filter on the antenna assembly (C-1, C-2, C-3, L-1, L-2, L-3, L-7 and L-8) and connect a wire from the antenna transformer to the feedthru—(C-6).

b) Change the converter plate coil as recommended below:

Tuner	Old Coil	New Coil
Target & Super Target (L-5)	S-47370	S-51153 paralleled by a 47K 1/2W. resistor
* Gold Video Guard (L-5)	S-50720	S-52983
**Bandswitch (L-1)	S-54114	S-52983

* Early production of this tuner used a converter plate coil which had a white coil form; later production uses a coil with a blue form.

The white coil can be directly replaced with S-52983 coil. When the blue converter coil is used, replace with S-52983 and rewire the 100K 1/2W. resistor (R-6) according to page 22 of TV-27 Service Manual, dated 6/5/61.

**In order to replace the present coil in the Bandswitch tuner with the new coil, two mechanical changes must be made:

1) Cut off the end segment of the locating key on the coil, and
2) Enlarge the locating hole in the tuner chassis so that the coil will fit.

The wiring of this coil is the same as the one removed.

c) To lower the oscillator frequencies, add a 1.5 mmfd. N-150 capacitor to: (1) Target Tuner: from plate to grid of 6CG8, (2) Super Target Tuner: from plate to chassis of 6CG8, (3) Gold Video Guard Tuner: from plate to grid of 6EA8.

NOTE: Capacitor leads should be as short as possible.

2) Changes on the tuner strips:
   a) Adjust strips to desired frequencies using above chart as a guide.
   b) Coils may be tuned for proper frequency and band-pass by knifing or squeezing.
   c) The cement on the coil forms may be softened with acetone.
   d) For CCIR frequency 48.25 to 53.75 M.C., new coils (with approximately three turns more than U.S. Channel 2) are necessary. This may be made from unused strips (U.S. Channel 4 or 5).
   e) Channel 10 strip can be converted to 217.25-222.75 M.C. by omitting one turn off each coil.
   f) Channel strips may be shifted in turret for any desired switching sequence.

Conversion of Bandswitch Tuner to CCIR Standards (38.9 MC. IF.)

	U.S. FREQUENCIES			CCIR FREQUENCIES (TYPICAL)		
U.S. Channel	Video	Sound	Osc.	Video	Sound	Osc.
2	55.25	59.75	101	48.25	53.75	87.15
3	61.25	65.75	107	55.25	60.75	94.15
4	67.25	71.75	113	62.25	67.75	101.15
5	77.25	81.75	123	—	—	—
6	83.25	87.75	129	82.25	87.75	121.15
7	175.25	179.75	221	175.25	180.75	214.15
8	181.25	185.75	227	182.25	187.75	221.15
9	187.25	191.75	233	189.25	194.75	228.15
10	193.25	197.75	239	196.25	201.75	235.15
11	199.25	203.75	245	201.25	206.75	240.15
12	205.25	209.75	251	210.25	215.75	249.15
13	211.25	215.75	257	217.25	222.75	256.15

   a) Remove or jumper IF trap assembly; connecting antenna input terminals (Top two) directly to antenna transformer terminals (Bottom two) of the antenna filter assembly.
   b) It is imperative to align the high frequency channel first and follow with each lower channel in sequence.

This procedure is necessary due to the fact that the inductances are in series.

c) R.F. Bandpass Alignment:

1) With tuner indexed in U.S. channel 13 position, align to the highest CCIR frequency (215.25-222.75 mc.) by knifing the channel 13 coils adjacent to the antenna and R. F. plate wafers.

2) Adjust the hairpin coils on the R.F. plate wafers of the next six channels nearer to, or further from switch rotor for proper response using proper CCIR frequencies for each channel. Start with the highest and proceed to the lowest.

3) The antenna circuits of channels 12 through 7 use stamped inductances which cannot be adjusted. Band acceptance is broad and no adjustment is required.

4) Index to U.S. channel 6 and adjust coil to obtain the corresponding CCIR frequencies.

5) Add new coils (approximately 14 turns of the same diameter wire) in place of the present U.S. channel 5 coils on both antenna and R.F. plate wafer. and adjust for proper bandpass. This is done to facilitate alignment of the final three channels.

6) Refer to step 2 and adjust the final three channels.

d) Oscillator Alignment: Starting in U.S. channel 13 position, adjust the oscillator frequencies for the CCIR frequencies as used in R.F. alignment, removing the brass cores from U.S. channels 6, 5, 3 and 2. Also the brass cores can be removed from one or more of the channels from 7 to 12 in order to facilitate alignment.

4. Test Equipment:

a) Radio Frequency Sweep Generator covering the desired frequencies with an output of approximately 0.1 volt or more.

b) Oscilloscope having a minimum sensitivity of 1 volt/inch.

c) Oscillator tuning wrench, as indicated on Page 3 of TV-27.
d) 50 to 300 ohm matching transformer, cable and dummy lead shown in Figure 4 of TV-27.
e) Variable frequency generator to mark the frequencies of the picture and sound carrier.

NOTE: When special CCIR channel strips are ordered for Target Tuners, the following information must be supplied:
1. Video and sound carrier frequencies.
2. Target Tuner part number.
3. Model and Chassis number.
4. I.F. frequency used.

ERRATA NOTE: In TV-27 Service Manual, dated 6/5/61, the parts lists on pages 49 and 51 are interchanged.

Parts List

1—1.5uuf N-150		22-2430
2—15uuf		22-2642
1—4.5uuf		22-2383
1—4.0uuf		22-2549
1—1.5uuf		22-1764
1—10uuf		22-2378
1—7.0uuf		22-2978
1—47uuf		22-2467
1—1800 ohm, 1/2W.		63-1796
1—15,000 ohm, 1/2W.		63-2372
1—10,000 ohm, 1/2W.		63-2844
1—6800 ohm, 1/2 W.		63-2381
1—12,000 ohm, 1/2W.		63-2845
1—4700 ohm, 5W.		63-4820
1—47,000 ohm, 1/2W.		63-2872 (For Target & Super Target Tuners)
1—Sound take-off coil	(L- 7)	S-51049
1—Quadrature coil	(L-12)	S-51050
1—1st IF & trap coil	(L- 1)	S-53637
1—2nd IF & trap coil	(T- 2)	S-53638
1—3rd IF coil	(T- 3)	S-53639
1—4th IF coil	(L- 3)	S-53640

1—Adjacent channel trap coil	(L- 2)	S-53641
1—Detector Shunt Peaking Coil	(L- 4)	S-53617
1—Shunt Peaking coil	(L- 8)	S-53618
1—Series Peaking coil	(L- 9)	S-53619
1—Converter Plate coil	(L- 5)	S-51153 (For Target & Super Target Tuners)
1—Converter Plate coil	(L- 5)	S-52983 (For Gold Video Guard Tuner)
1—Converter Plate coil	(L- 1)	S-52983 (For Band-switch Tuner)

Richard Henn
Mfn.

E. Zahlmann
Export Eng.

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 52

ZENITH RADIO CORPORATION
6001 W. Dickens Avenue
Chicago 39, Illinois

CCIR Conversion
"J" Model Chassis in Service Manual TV-28

Chassis: 16J22 and 16J23

To convert these models from U.S.A. standards to CCIR standards, five basic changes must be made:

I. Sound discriminator must be changed from 4.5 to 5.5 Mc and maximum deviation from 25 to 50 Kc.
II. IF acceptance channel must be broadened by 1 Mc.
III. RF channels must be shifted from U.S.A. to CCIR frequencies.
IV. Bandwidth of video amplifier must be increased.
V. Vertical syne injection and hold range must be changed.

I. Circuit Modifications for Video IF, Sound IF & Video Amplifier:

A. Remove 35 turns from quadrature coil (L-12).

B. Change the capacitor across the secondary of the intercarrier coil (L-11) from 470 uuf. to 330 uuf. and add a 15K ohm, 1/2W. resistor across this capacitor.

C. Remove 7 turns from the primary and 12 turns from the secondary of the sound take-off coil (L-7).

D. Change the 6BN6 plate resistor from 680 ohms to 1800 ohms.

E. Add a 8200 ohm, 1/2W. resistor from the grid of the first IF tube (Pin 2) to IF A.G.C. point "E".

F. Change the 10K ohm, 1/2W. resistor across the primary of T-2 to 5600 ohm, 1/2W.

G. Add a 8200 ohm, 1/2W. resistor across the secondary of T-3, from Pin 2 of the 3rd IF tube to the junction of the 12K ohm and 270K ohm resistors.

H. Change the detector shunt peaking coil (L-4) to S-45000.

I. Change the video series peaking coil (L-9) to S-18752.

J. Change the video shunt peaking coil (L-8) to S-53618.

K. Change the video plate load resistor from 7500 ohm, 5 W. to 4700 ohm, 5 W.

L. Change the video cathode by-pass capacitor from .033 ufd. to .0033 ufd.

M. Change C44 at Pin 4 of the 6EM7 from .0068 to .0082 mfd. and change the 330K ohm resistor located at the same point to 270K ohm.

II. Alignment of Video and Sound:

The alignment procedure appears on pages 7 & 8 of TV-28 with the following exceptions:

X Substitute wherever they occur: 40.25 Mc. for 41.25 Mc.
41.75 Mc. for 42.75 Mc.
38.75 Mc. for 39.75 Mc.
5.5 Mc. for 4.5 Mc.

III. Alignment of Tuners:

A. Alignment of turret tuners (Target, Super Target & Gold Video Guard). Follow procedure for these tuners on

Pages 10 and 11 of Service Manual TV-28 with modifications noted below:

1. With the tuner cover off, the individual channel strips can be removed to facilitate necessary adjustments.

2. Adjust strips to desired frequencies using the accompanying chart as a guide.

3. Coils may be tuned for proper frequency and bandpass by knifing or squeezing.

4. The cement on the coil forms may be softened with acetone.

5. Channel strips may be shifted in the turret for any desired switching sequence.

B. Alignment of Bandswitch Tuner; follow procedure on page 10 of Service Manual TV-28 with modifications noted below:

1. In the case of the bandswitch tuner there are no removable tuner strips; therefore, all adjustments must be made inside the tuner.

2. It is imperative to align the high frequency channel first and follow with each lower channel in sequence. This procedure is necessary due to the fact that the inductances are in series.

3. RF plate coil (Mixer) adjustment.

a) Start with channel selector on channel 13. Adjust RF plate inductance so that the 210.25 Mc. video and the 215.75 Mc. sound markers fall symmetrically on the response curve.

Picture carrier should be about 4 Db. maximum below peak of bandpass (with cover off tuner). Where 217.25 Mc. video carrier is used, set channel 13 to that frequency.

b) Switch to channel 12 and adjust RF coil loop in that section nearer to, or further from the switch rotor for proper response using proper CCIR frequencies for the channel.

c) Repeat above for all channels. Observe that channels 12 through 7 use single inductance loops, while channels 6 through 2 use coils.

4. Antenna coil adjustment.

a) Channels 12 through 7 use stamped inductances which cannot be adjusted. Band acceptance is broad and no adjustment is required.

b) Adjust antenna coils on channels 6 through 2 starting with channel 6 and working to the lower frequencies.

5. Oscillator.

a) Use procedure of paragraph 6, page 10 of TV-28. Be sure to adjust the high frequency channels first. In some cases, it may be necessary to remove completely the adjusting screw on one of the unused channels.

IV. Below is a list of the 12VHF channels used in the U.S.A. with their picture, sound carrier and oscillator frequencies in Mc. The suggested channels for conversion to CCIR frequencies are also indicated. Channel members in different countries may correspond to different frequencies.

	U.S.A.			CCIR (Typical)		
U.S. Channel	Video	Sound	Osc.	Video	Sound	Osc.
2	55.25	59.75	101	55.25	60.75	101
3	61.25	65.75	107	62.25	67.75	108
4	67.25	71.75	113	—	—	—
5	77.25	81.75	123	—	—	—
6	83.25	87.75	129	82.25	87.75	128
7	175.25	179.75	221	175.25	180.75	221
8	181.25	185.75	227	182.25	187.75	228
9	187.25	191.75	233	189.25	194.75	235
10	193.25	197.75	239	196.25	201.75	242
11	199.25	203.75	245	201.25	206.75	247
12	205.25	209.75	251	—	—	—
13	211.25	215.75	257	210.25	215.75	256

Replacement strips for tuners should be specified by frequency. Channel strips can be shifted in either Target or Gold Video Guard tuners to correspond with knob numbering. No such shift can be done on the Bandswitch tuner.

V. Test Equipment:

A. Radio frequency sweep generator covering the desired frequencies with an output of approximately 0.1 volt or more.

B. Oscilloscope having a minimum sensitivity of 1 volt/inch.

C. Oscillator tuning wrench, as indicated on page 3 of TV-28.

D. 50 to 300 ohm matching transformer, cable and dummy lead shown in figure 4 of TV-28.

E. Variable frequency generator to mark the frequencies of the picture and sound carriers.

Parts List for CCIR Conversion "J" Model Chassis

Quantity	Part Number	Description
1	22-2667	330 uuf.
1	22-2670	.0033 ufd.
1	22-2431	.0082 ufd.
1	63-1796	1800 ohm, 1/2W.
1	63-1887	270K ohm, 1/2W.
1	63-2372	15K ohm, 1/2W.
2	63-2843	8200 ohm, 1/2W.
1	63-4472	5600 ohm, 1/2W.
1	63-4820	4700 ohm, 5W.
1	S-18752	Video series peaking coil (100 uh)
1	S-45000	Detector shunt peaking coil (85 uh)
1	S-53618	Video shunt peaking coil (191 uh)

When special CCIR channel strips are required for target tuners, the following information must be supplied:

1. Video and sound carrier frequencies.
2. Target tuner part number.
3. Model and chassis numbers.
4. IF frequency used.

/s/ ADAM W. PRZYBYSZEWSKI
A. Przybyszewski

/s/ W. UELSMANN
W. Uelsmann

/s/ A.G.
A. Gorbunoff

/s/ E. ZAHLMANN
E. Zahlmann

mfn.

February, 1962

ZENITH RADIO CORPORATION
6001 W. Dickens Avenue
Chicago 39, Illinois

CCIR Conversion
"J" Model Chassis in Service Manual TV-28
Chassis: 16J27

To convert this model from U.S.A. standards to CCIR standards, five basic changes must be made:

1. Sound discriminator must be changed from 4.5 to 5.5 Mc. and maximum deviation from 25 to 50 Kc.
2. IF acceptance channel must be broadened by 1 Mc.
3. RF channels must be shifted from U.S.A. to CCIR frequencies.
4. Bandwidth of video amplifier must be increased.
5. Vertical syne injection and hold range must be changed.

I. Circuit Modifications for Video IF, Sound IF and video Amplifier:

A. Remove 35 turns from the quadrature coil (L-11).

B. Change the capacitor across the secondary of the intercarrier coil (L-10) from 330 uuf to 220 uuf, and add a 15K ohm, ½ W. resistor across this capacitor.

C. Remove 7 turns from the primary and 12 turns from the secondary of the sound take-off coil (L-7).

D. Change the 6BN6 plate resistor from 680 ohms to 1800 ohms.

E. Add a 22K ohm, ½ W. resistor from the grid of the first IF tube (Pin 1) to IF A.G.C. point "E".

F. Change the 33K ohm, ½ W. resistor (R-2) across the primary of T-2 to 22K ohm ½ W.

G. Change the 6800 ohm, ½ W. resistor (R-3) across the secondary of T-3 to 5600 ohm, ½ W.

H. Change the detector shunt peaking coil (L-4) to S-16011.

*I. Change the video series peaking coil (L-9) to S-5274.

J. Change the video shunt peaking coil (L-8) to S-52793.

K. Change the video plate load resistor from 7500 ohm, 5 W. to 4700 ohm, 5 W.

L. Change C-44 at Pin 4 of the 6EM7 from .0068 ufd. to .0082 ufd. and change the 330 K ohm resistor located at the same point to 390K ohm.

M. Replace the 82K ohm and the 68K ohm resistors located in the plate circuit of the 6HS8 at Pin 8 by 100K ohm and 47K ohm respectively.

II. Alignment of Video & Sound:

The alignment procedure appears on pages 7 & 8 of TV-28 with the following exceptions:

Substitute wherever they occur:

40.25 Mc. for 41.25 Mc.
41.75 Mc. for 42.75 Mc.
38.75 Mc. for 39.75 Mc.
5.5 Mc. for 4.5 Mc.

III. Alignment of Tuners:

A. Alignment of turret tuners (Target, Super Target & Gold Video Guard). Follow procedure for these tuners on pages 10 and 11 of Service Manual TV-28 with modifications noted below:

1. With the tuner cover off, the individual channel strips can be removed to facilitate necessary adjustments.

2. Adjust strips to desired frequencies using the accompanying chart as a guide.

---

*Relocate the video series peaking coil so that it is connected between the center arm of the contrast control and the coupling capacitor which was originally connected to the arm. Add a single lug terminal strip to support junction of coil and capacitor.

Add a piece of wire between the two points where the coil was originally connected.

3. Coils may be tuned for proper frequency and bandpass by knifing or squeezing.

4. The cement on the coil forms may be softened with acetone.

5. Channel strips may be shifted in the turret for any desired sequence.

B. Alignment of Bandswitch Tuner; follow procedure on page 10 of Service manual TV-28 with modifications noted below:

1. In the case of the bandswitch tuner there are no removable tuner strips; therefore, all adjustments must be made inside the tuner.

2. It is imperative to align the high frequency channel first and follow with each lower channel in sequence. This procedure is necessary due to the fact that the inductances are in series.

3. RF plate coil (mixer) adjustment.

a) Start with channel selector on channel 13. Adjust RF plate inductance so that the 210.25 Mc. video and the 215.75 Mc. sound markers fall symmetrically on the response curve.

Picture carrier should be about 4 Db. maximum below peak of bandpass (with cover off tuner). Where 217.25 Mc. video carrier is used, set channel 13 to that frequency.

b) Switch to channel 12 and adjust RF coil loop in that section nearer to, or further from the switch rotor for proper response using proper CCIR frequencies for the channel.

c) Repeat above for all channels. Observe that channels 12 through 7 use single inductance loops, while channels 6 through 2 use coils.

4. Antenna coil adjustment.

a) Channels 12 through 7 use stamped inductances which cannot be adjusted. Band acceptance is broad and no adjustment is required.

b) Adjust antenna coils on channels 6 through 2 starting with channel 6 and working to the lower frequencies.

5. Oscillator.

a) Use procedure of paragraph 6, page 10 of

TV-28. Be sure to adjust the high frequency channels first. In some cases, it may be necessary to remove completely the adjusting screw on one of the unused channels.

IF. Below is a list of the 12 VHF channels used in the U.S.A. with their picture, sound carrier and oscillator frequencies in Mc. The suggested channels for conversion to CCIR frequencies are also indicated. Channel numbers in different countries may correspond to different frequencies.

	U.S.A.			CCIR (Typical)		
U.S. Channel	Video	Sound	Osc.	Video	Sound	Osc.
2	55.25	59.75	101	55.25	60.75	101
3	61.25	65.75	107	62.25	67.75	108
4	67.25	71.75	113	...	...	...
5	77.25	81.75	123	...	...	...
6	83.25	87.75	129	82.25	87.75	128
7	175.25	179.75	221	175.25	180.75	221
8	181.25	185.75	227	182.25	187.75	228
9	187.25	191.75	233	189.25	194.75	235
10	193.25	197.75	239	196.25	201.75	242
11	199.25	203.75	245	201.25	206.75	247
12	205.25	209.75	251	...	...	...
13	211.25	215.75	257	210.25	215.75	256

Replacement strips for tuners should be specified by frequency. Channel strips can be shifted in either Target or Gold Video Guard tuners to correspond with knob numbering. No such shift can be done on the Bandswitch tuner.

V. Test Equipment.

A. Radio frequency sweep generator covering the desired frequencies with an output of approximately 0.1 volt or more.

B. Oscilloscope having a minimum sensitivity of 1 volt/inch.

C. Oscillator tuning wrench, as indicated on page 3 of TV-28.

D. 50 to 300 ohm matching transformer, cable and dummy lead shown in figure 4 of TV-28.

E. Variable frequency generator to mark the frequencies of the picture and sound carriers.

Parts List for CCIR Conversion "J" Model Chassis

Quantity	Part Number	Description
1	22-2926	220 uuf.
1	22-2431	.0082 ufd.
1	63-1796	1800 ohm, 1/2W. ±20%
1	63-1855	47K ohm, 1/2W. ±10%
1	63-1869	100K ohm, 1/2W. ±10%
1	63-1894	390K ohm, 1/2W. ±10%
1	63-2372	15K ohm, 1/2W. ±10%
2	63-2848	22K ohm, 1/2W. ±10%
1	63-4472	5600 ohm, 1/2W. ±10%
1	63-4820	4700 ohm, 5W. ±10%
1	S-16011	Detector shunt peaking coil (250uh)
1	S-52793	Video shunt peaking coil (100 uh)
1	S-52794	Video series peaking coil (73 uh)
1	83-2132	Single lug terminal strip

When special CCIR channel strips are ordered for target tuners, the following information must be supplied:

1. Video and sound carrier frequencies.
2. Target tuner part number.
3. Model and chassis numbers.
4. IF frequency used.

/s/ Adam W. Przybyszewski
A. Przybyszewski

/s/ W. Uelsmann
W. Uelsmann

/s/ A.G.
A. Gorbunoff

/s/ E. Zahlmann
E. Zahlmann

ZENITH RADIO CORPORATION
6001 W. Dickens Avenue
Chicago 39, Illinois

October 30, 1961

CCIR CONVERSION
"H" Model Chassis in Service Manual TV-27
Chassis: 16H20, 16H27

To convert these models from U.S.A. Standards to CCIR Standards three basic changes must be made:

1. Sound discriminator must be changed from 4.5 to 5.5 Mc. and maximum deviation from 25 to 50 Kc.
2. I.F. acceptance channel must be broadened by 1 Mc.
3. R.F. channels must be shifted from USA to CCIR frequencies.

I. Circuit Modifications for IF and Sound:

a. Remove 35 turns from the quadrature coil L-9 in the 16H20 and L-11 in the 16H27.

b. Change the capacitor across the secondary of the intercarrier coil (L-8 in the 16H20, L-10 in the 16H27) from 330uuf to 220uuf and add a 15,000 ohm, ½W. resistor across this capacitor.

c. Remove 7 turns from the primary and 12 turns from the secondary of the sound take-off coil. (L-11 in 16H20, L-7 in the 16H27).

d. Change the 6BN6 plate resistor from 680 ohms to 1800 ohms.

e. 1. Add a 22,000 ohm, ½W resistor from the grid of the first I.F. tube (Pin 1) to I.F. A.G.C. point "E".

2. In the 16H20 and 16H27, change the 33,000 ½W. resistor (R2) across the primary of T-2 to 22,000 ohms, ½W.

3. Change the 6,800 ohm, ½W. resistor (R3) across the secondary of T-3 of the 16H20 and 16H27 to 5,600 ohms.

II. Alignment of Video and Sound:

a. The alignment procedure appears on pages 7 and 8 of TV-27 with the following exceptions,

1. Substitute 40.25 Mc. for 41.25 Mc.; 41.75 Mc. for 42.75 Mc.; 38.75 Mc. for 39.75 Mc.; and 5.5 Mc. for 4.5 Mc.; wherever they occur.

III. Alignment of Tuners:

a. Alignment of turret tuners (Target, Super Target & Gold Video Guard). Follow procedure for Target & Gold Video Guard tuners on pages 9 and 10 of Service Manual TV-27 with modifications noted below:

1. With the tuner cover off, the individual channel strips can be removed to facilitate necessary adjustments.
2. Adjust strips to desired frequencies using the accompanying chart as a guide.
3. Coils may be tuned for proper frequency and bandpass by knifing or squeezing.
4. The cement on the coil forms may be softened with acetone.
5. Channel strips may be shifted in turret for any desired switching sequence.

b. Alignment of Bandswitch Tuner; follow procedure on page 9 of Service Manual TV-27 with modifications noted below:

1. In the case of the bandswitch tuner there are no removable tuner strips; therefore, all adjustments must be made inside the tuner.
2. It is imperative to align the high frequency channel first and follow with each lower channel in sequence. This procedure is necessary due to the fact that the inductances are in series.
3. R.F. plate coil (Mixer) adjustment.

A. Start with channel selector on channel 13. Adjust RF plate inductance so that the 210.2

Mc. video and 215.75 Mc. sound markers fall symmetrically on the response curve.
Picture carrier should be about 4 Db. maximum below peak of bandpass with cover off tuner. (Where 217.25 Mc. video carrier is used, set channel 13 to that frequency).

B. Switch to channel 12 and adjust RF coil loop in that section nearer to, or further from switch rotor for proper response using proper CCIR frequencies for the channel.

C. Repeat above for all channels. Observe that channels 12 through 7 use single inductance loops, while channels 6 through 2 use coils.

4. Antenna Coil Adjustment.

A. Channels 12 through 7 use stamped inductances which cannot be adjusted. Band acceptance is broad and no adjustment is required.

B. Adjust antenna coils on channels 6 through 2 starting with channel 6 and working to the lower frequencies.

5. Oscillator.

A. Use procedure of paragraph 6, page 9; TV-27. Be sure to adjust high frequency channels first. In some cases, it may be necessary to remove completely the adjusting screw on one of the unused channels.

IV. Below is a list of the 12 VHF channels used in the USA with their picture, sound carrier and oscillator frequencies in Mc. The suggested channels for conversion to CCIR frequencies are also indicated. Channel numbers in different countries may correspond to different frequencies.

U.S.A.				CCIR (Typical)		
U.S. Channel	Video	Sound	Osc.	Video	Sound	Osc.
2	55.25	59.75	101	55.25	60.75	101
3	61.25	65.75	107	62.25	67.75	108
4	67.25	71.75	113	—	—	—
5	77.25	81.75	123	—	—	—
6	83.25	87.75	129	82.25	87.75	128
7	175.25	179.75	221	175.25	180.75	221
8	181.25	185.75	227	182.25	187.75	228
9	187.25	191.75	233	189.25	194.75	235
10	193.25	197.75	239	196.25	201.75	242
11	199.25	203.75	245	201.25	206.75	247
12	205.25	209.75	251	—	—	—
13	211.25	215.75	257	210.25	215.75	256

Replacement strips for tuners should be specified by frequency. Channel strips can be shifted in either targer or Gold Video Guard tuners to correspond with knob numbering. No such shift can be done on the bandswitch tuner.

V. Test Equipment.

a. Radio Frequency Sweep Generator covering the desired frequencies with an output of approximately 0.1 volt or more.

b. Oscilloscope having a minimum sensitivity of 1 volt/inch.

c. Oscillator tuning wrench, as indicated on page 3 of TV-27.

d. 50 to 300 ohm matching transformer, cable and dummy lead shown in figure 4 of TV-27.

e. Variable frequency generator to mark the frequencies of the picture and sound carrier.

Parts List for CCIR Conversion "H" Model Chassis

PART	PART #	16H20 16H27
Condensers		
220 uuf	22-2926	1
Resistors		
1,800, 1/2W.	63-1796	1
15,000, 1/2W.	63-2372	1
22,000, 1/2W.	63-2848	2
5,600, 1/2W.	63-4472	1

When special CCIR channel strips are ordered for Target tuners, the following information must be supplied.

1. Video and sound carrier frequencies.
2. Target tuner part number.
3. Model and chassis number.
4. IF frequency used.

/s/ E. ZAHLMANN
A. Gorbunoff

/s/ R. C. WILSON
A. Przybyszewski

mfn

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 54

ERT ELECTRICAL and RADIO TRADING
Vol. 52 No. 665—December 2, 1961

• • •

ZENITH TV HERE IF 625 COMES IN

American Zenith TV sets will be marketed in this country if the Government decides to change to 625 lines.

Zenith already sells radiograms, transistor radios and hearing aids in the U.K. The company has built up a network of dealers through United Mercantile, the sole UK distributor.

The same dealers, it is planned, would handle TV sets.

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 55

ELECTRICAL AND RADIO TRADING, May 19, 1962
ERT An Odhams Group Publication

• • •

ZENITH READY

Zenith, the leading American TV manufacturer, is all set to supply 625-line TV sets to Britain as soon as the outcome of the Pilkington report is known.

A. R. Ramsay, managing director of United Mercantile

Company, sole distributors in the UK, told ERT this week that colour sets as well as black and white will be imported immediately the market opens.

It has been announced in New York that Zenith is to make its own TV colour tubes.

It is expected that 275,000 colour sets will be sold in America this year bringing the total in use to about 900,000—but that figure is still below two per cent saturation.

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 56

7 July 1962 WIRELESS AND ELECTRICAL TRADER

* * *

ZENITH 625-LINE TV SETS ARE ON THE WAY

An initial consignment of Zenith 625-line television receivers is on its way to this country from America stated Adam R. Ramsay, managing director of United Mercantile Co. Ltd., the sole U.K. distributors, to the *Trader* on Monday. They would be on display at their Mayfair showrooms within the next week or so and he was confident that there would be a good demand for them.

"We do not intend to compete on price but only on quality and service," he continued. "Zenith sets will be available throughout the country at shops and stores which already sell Zenith radio receivers and radiograms."

A 21 in. colour television receiver would sell from about £350-£400 he thought. The big factor for sales would be the provision of colour programmes. That, together with more reliable and cheaper models introduced in America, had produced a big demand over there. On the American market, the Zenith Radio Corporation of Chicago sell 42 monochrome and 15 colour models.

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 57

21 July 1962 WIRELESS AND ELECTRICAL TRADER

• • •

ZENITH DEVELOPMENT FOR RECORD PLAYING

Improved Stereo And Record Wear

A new and revolutionary development in record playing is promised at the end of this month by the United Mercantile Co. Ltd., Sovereign House, 13-14 Queen Street, Mayfair, London, W.1. The development is a new type of tone arm and cartridge jointly developed by the Zenith Radio Corporation of Chicago and CBS Laboratories. United Mercantile are the sole distributors for Zenith products in this country.

The new tone arm and cartridge is stated to give greater stereo separation, provide built-in protection against audible scratching and to give up to 2,000 plays without record wear.

A selection from the wide range of Zenith 625-line television receivers—which are to be marketed in Britain as reported in the *Trader* July 7 issue—will be on display at the United Mercantile showrooms in Queen Street at the end of this month.

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 58

4 August 1962 WIRELESS AND ELECTRICAL TRADER

ZENITH RECORD DEVELOPMENT SHOWN IN LONDON THIS WEEK

Wired Pay TV Obsolete: Zenith Director

Revolutionary development in automatic record changers

which has stereo separation between channels twice that previously provided in commercial record players is claimed by the Zenith Radio Corporation. First news of this development was given in the Trader July 21 issue and more details are given on New Products page 213.

Speaking at a demonstration in the London showrooms of the United Mercantile Co. Ltd., sole U.K. distributors for Zenith, last Tuesday, Adam R. Ramsay, managing director, displayed the new type of tone arm with a free-floating cartridge which can be dropped or scraped across records without causing damage. He then went on to talk of Zenith's plans to enter the British market with black and white and colour TV's.

Zenith 625-line TV Here

There were seven models from the Zenith 1963 TV range in the showroom, part of a range of 42 monochrome sets. He was confident that there would be a substantial demand for Zenith sets and colour receivers would be arriving soon. He also mentioned that Zenith stereo F.M. transmission (Multiplex) went on the air in America on June 1, 1961. There were now more than 200 F.M. stations in the U.S. and the B.B.C. are conducting tests as mentioned in the *Trader* July 21 issue.

Mr. Ramsay went on to talk about Pay TV and said that an over-the-wires system was given up in 1954 as obsolete. They have developed Phonovision, an over-the-air system of Pay TV. He was delighted to see that the Government White Paper recommends Pay TV but only hoped that the system adopted will not be an over-the-wires system, abandoned by Zenith eight years ago. "After all, we are living in an age in which we are trying to do away with wires and cables, and the best example of that is the Telstar experiments," he said.

Plaintiff's Rondar Depositions Exhibit 54 for id

MODEL. K3345	H	S/NO. 5536790	ARR'D. S/S. American Producer	DATE. (A) 2.7.62
DELIVERED TO:- Shannon		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: Converted to UK/CCIR Ch. 34, 44	ON	BY Zenith
	ON	BY

DATE	BY	SERVICE

MODEL. HK 3388	H	S/NO. 55102 44	ARR'D. S/S. American Producer	DATE. (B) 2.7.62
DELIVERED TO:- Hartford Pl		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: Converted to UK/CCIR Ch 34, 44.	ON	BY Zenith
	ON	BY

DATE	BY	SERVICE

(C)

MODEL. FIK 3388	H	S/NO. 5243178	ARR'D. S/S Am. Farmer	DATE. 23.10.62

DELIVERED TO:- Smith	ON	FROM
	BY	ON BEHALF OF

MODIFICATIONS: UHF 625	ON	BY Smith
	ON	BY

DATE	BY	SERVICE

(D)

MODEL. K 3385	H	S/NO. 5247918	ARR'D. S/S. Am. Farmer	DATE. 23.10.62.

DELIVERED TO:- Phillips	ON	FROM
	BY	ON BEHALF OF

MODIFICATIONS: UHF 625	ON	BY Smith
	ON	BY

DATE	BY	SERVICE

(E)

MODEL. K 3311	R	S/NO. 580437	ARR'D. S/S. Am. Farmer	DATE. 2.12.62
DELIVERED TO:- Phillips		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: Uhf. 62F	ON	BY Smith
	ON	BY

DATE	BY	SERVICE

(F)

MODEL. K 208 U	L	S/NO. 5705088	ARR'D. S/S. American Producer	DATE. 2.7.62
DELIVERED TO:- Johnson		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: Converted to UK/CIR by Zenith	ON	BY
	ON	BY

DATE	BY	SERVICE

MODEL. K2108	L	S/NO. 5787631	ARR'D. S/S. Am. Farmer	DATE. 5.10.62
DELIVERED TO:-		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: UHF 625	ON	BY Zenith
	ON	BY

DATE	BY	SERVICE

MODEL. K2228	R	S/NO. 5673496	ARR'D. S/S. American Producer	DATE. 2.7.62
DELIVERED TO:- BBC		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: Converted to UK KC12 Ch. 3V, 4H	ON	BY Zenith
	ON	BY

DATE	BY	SERVICE

(I)

MODEL. K2228	H	S/NO. 5829562	ARR'D. S/S Am. Farmer	DATE. 20.10.62
DELIVERED TO:- Hullers		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: UHF 625	ON	BY Lemitz
	ON	BY

DATE	BY	SERVICE

(J)

MODEL. K2228	L	S/NO. 5703228	ARR'D. S/S. Am. Farmer	DATE. 20.10.62
DELIVERED TO:-		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: UHF 625	ON	BY Lemitz
	ON	BY

DATE	BY	SERVICE

MODEL. K 27/7 U	H	S/NO. 527979	ARR'D. S/S. Constitution Portland	DATE. 2/42
DELIVERED TO:- BBC		ON	FROM	
		BY	ON BEHALF OF	

MODIFICATIONS: Converted to 24/Coil by Zenith	ON	BY
	ON	BY

DATE	BY	SERVICE

ZENITH RADIO CORPORATION
6001 W. Dickens Avenue
Chicago 39, Illinois
Cable Address—"Zenithrad" All Codes
International Division

June 25, 1959

Mr. A. R. Ramsay
United Mercantile Co., Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

We are pleased to provide you with thermofax copies of inquiries received from London as well as copies of our answers.

We sincerely hope that these will be of some benefit to you for possible dealer arrangements. We realize its a little early in the game as yet for this type of referral, however, we know that you will follow up in your own good time, and at your discretion.

In order to try to place you in more direct contact with prospective purchasers, we will, within the next few weeks, prepare a letter to those individuals having inquired within the past six or eight months, advising them of your accepting the ZENITH distribution for England. As indicated in the attached, we will advise that merchandise is enroute to London, that they may not expect to pick up the telephone and have one of the units in their possession the following day.

Just as a note of advice—the insurance figures and recommended spare parts list are being worked on. These will be mailed within the immediate future.

Kindest regards.

Yours very truly,

/s/ H. L. GRIMM
H. L. Grimm
International Division

HLG:ca
AIRMAIL
enc.

Zenith Radio Corporation
6001 Dickens Avenue
Chicago 39, Illinois

3053
3rd July, 1959

AM/FM RADIOS

Please kindly advise us whether there is sufficient room in the cabinets of your AM/FM Radio range, to fit inside the cabinets a step-down transformer 220/110 volts.

R.

Zenith Radio Corporation
6001 Dickens Avenue
Chicago 39.

ARR/3070
7th July, 1959

SPEC SHEETS R760—Navigator.

It appears that the above model can be of greater interest to the public than originally expected—mainly due to the fact that it has long wave band.

In the circumstances we shall be obliged if you let us have:

100 SPEC SHEETS R760.

Thanking you,

Yours faithfully,

Ref: AR/mg No. 3062
7th July, 1959

The Zenith Radio Corporation,
6001 Dickens Avenue,
CHICAGO 39, Illinois,
U. S. A.

Dear Sirs,

Reference: Art Work

We refer to the exchange of cables regarding colour photographs, and we regret to hear that none are available.

We are now making our advertising programme, and one of the biggest difficulties is the question of layout and art work, and in view of the fact that our advertising cannot be conducted on a national scale, in many cases the cost of art work exceeds the actual cost of the advertisement.

In the circumstances, we shall be most obliged if you will see how you can help us in this respect.

We believe that your publicity is handled by Inter Ocean Advertising Corporation, which is a subsidiary of yours, and it may be that they will be able to provide us with existing art work which could be utilized here.

This matter is rather urgent as we are booking space.

Please also note that we need layouts preferably in colour as, Zenith Radios being in the high bracket of prices, they command corresponding treatment.

Thanking you for any assistance you may be able to give us,

Yours faithfully,

for United Mercantile Company, Ltd.
A. R. Ramsay
Director

Mr. John A. Miguel, Jr.
Vice President—Export,
Zenith Radio Corporation,
6001 Dickens Avenue.
Chicago 39. Ill.

Ref:ARR/GS/3091
16th July. 1959

Dear Mr. Miguel, re: Publicity

You will recall our conversation in Chicago when I pointed out to you how terribly important for future success will be the initial publicity campaign and, therefore, we have given carefuly consideration to this matter and finally arrived at the scheme which I am enclosing herewith.

I am also enclosing the covering letter from our Publicity Agents from which you will see that the media chosen is what we call here the "glossy" magazines, as Zenith being in the highest price range cannot be publicised in every day press unless purely for prestige reasons.

The scheme covers general publicity concentrated in two selling periods which are Autumn and Spring, and you will see that it amounts to approximately £14,000, taking into consideration the Publicity Agents' commission. This is not a complete scheme as it does not incorporate any additional advertising in local newspapers or co-operative advertising with dealers.

For your guidance, every magazine in which it is anticipated to advertise is very widely circularised and penetrates not only to the British market—all of them are being sold in practically every Country in Europe, particularly France, Switzerland, Germany, Holland, Denmark and so on, therefore any expenditure which will be made here should bring in results also from other markets.

You will recall that you mentioned to me that you will be very sympathetic regarding the initial contribution of Zenith and I have no doubt you will do so.

As you are aware, prices being very high our margin of profit is very restricted and apart from the expenses mentioned in the enclosed scheme we have gone into very heavy expenditure in organising the distribution and, therefore, we think it would be only fair that your contribution is very substantial and I would like you to take into consideration that the total expenditure of publicity and public promotion will run into something in the region of £18,000. ($50,000). Naturally, taking into consideration your total expenditure on publicity this is a very small amount indeed.

Although there is a printing strike now in England, we must very quickly book space and, therefore, your quick decision in this matter will be greatly appreciated.

With kindest regards,

Yours sincerely,

for UNITED MERCANTILE COMPANY LTD.,

Encls. Director

ZENITH RADIO CORPORATION
—— 6001 Dickens Avenue ——
Chicago 39, Illinois

July 27, 1959

John A. Miguel, Jr.
Vice President in charge of export
Mr. A. R. Ramsay
United Mercantile Co., Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

Reference: AR/mg No. 3062—Art Work

This is with reference to your letter of July 27, regarding

the art work problem also the matter of color photographs and layouts. [Illegible] nothing to do with our advertising program. They are merely concerned with the operation of our Display Salon at 666 Fifth Avenue in New York City. On domestic national advertising, we work with—Foote, Cone & Belding—and for export, we have the firm of — J. G. Sullivan in South Bend, Indiana—. In the preparation of sales promotion display and other materials, we work with a number of firms who specialize in these services located in the Chicago area. Of course, all the master planning emanates from us and we have setups in the company that implement the entire program.

On the matter of local advertising—that is, by the distributors and the dealers—much depends on the distributor and the local competitive situation. A number of these distributors have their own agencies with whom they work independent of the ones the company works with. The local advertising comes under the co-op program and to the extent we can, we also help the local distributors in the preparation of ad mats, etc., catalogs of which I believe you took along with you when you were here. It does not necessarily mean though that the local distributors do not develop special ads of their own to meet local markets and situations. In fact, the majority of the local type of advertising follows more the local pace than those suggested and prepared by the factory and our own advertising agencies.

We regret that we cannot make available to you the original color photographs, which in fact are transparencies, as you see these sets photographed in color on our spec sheets. The same situation holds on the color layouts. Of course, there may be occasions where these materials can be made available to you where the sets featured have been discontinued.

This matter of art work is of course quite a factor, par-

ticularly where the volume potentially is slow and the local production costs are quite high. I had a long talk with Mr. Jack Sullivan of our export advertising agency who was here the other day, and I believe he might be able to help you. He is going to communicate with you directly, giving you copies of ads that we have prepared and released recently, and some of that art work could be made available to you. Of course, these are all for export advertising that has not been available domestically. I do not know if this type ad is the one you are seeking, but I think that for your purpose, it should serve you just as well. Another problem on our export advertising is that we have concentrated, as you will see, on a few bread-and-butter models, which may or may not be suitable for your program. At any rate, you will have the chance to see what Mr. Sullivan has available and he will be very glad to take care of your needs.

I believe, at this time, we should not go hog-wild on advertising, and on this subject, I will be writing you again in answer to a couple of letters you have written me on the subject, which I have been kicking around for several days, since I got back from vacation. Your agency's program, from my quick look, appears very ambitious, particularly in the face of a limited market, which the report indicates can be achieved at its very best, because of the unfavorable price factor.

Kindest personal regards.

Sincerely,

J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

Ref: ARR/GS/3125
27th July, 1959

Mr. John A. Miguel, Jr.
Vice President-Export,
Zenith Radio Corporation,
6001 Dickens Avenue.
CHICAGO 39, Illinois.

Dear Mr. Miguel,

Thank you for your letter of the 24th instant with the enclosed new agreement which I have duly signed today and sent as requested by you.

I understand that the new agreement is to remain in force during the transitionary period until the matter of the trade mark is settled.

Although you have mentioned in your cable "Paragraph 18", I would dare to observe that it was not applicable in this case as there was no breach of agreement by either party, but as our interests are parallel as far as U.K. market is concerned, we are only too willing to co-operate with you or your legal advisers.

I am taking also the opportunity to mention that although you are carrying the financial weight of the action in progress, it is I who really sticks my neck out.

We have very little doubt that the action will be successful whether in Court or by amicable settlement, but should by some bad luck the action turn against us it will be me to bear the whole weight.

You have seen from the preliminary reports how energetically we have gone into the matter of distribution and up to now expenses are very substantial, but as mentioned on previous occasions and from your own experience you realize that unless our endeavors are backed up by proper publicity scheme the results may be disappointing and, therefore, I ask you once more to give sympathetic con-

sideration to the plans we have submitted to you on the 16th July.

After initial probes in the market and additional information, we estimate that our first year turnover with you should run into approximately $300,000, but whether this figure will be attained or exceeded will depend to a great extent on the co-operation which we shall receive from you and in which I have no doubt whatsoever.

With Kindest personal regards,

Yours sincerely,

for United Mercantile Company, Ltd.

Director

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

July 27, 1959

John A. Miguel, Jr.
Vice President
In Charge of Export

Mr. A. R. Ramsay
United Mercantile Co., Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

Reference: ARR/GS/3092

We have for acknowledgment your letter of July 16 with regard to the coming National Radio Show to be held in

London.

We note that participation in the Radio Show is restricted to British manufacturers, but that you are intending to display ZENITH merchandise in a suite of a leading London hotel during the period of the Show. We believe it is a very good idea, provided you do not go overboard in displaying all kinds of ZENITH products that would not be marketable in Britain for price and other considerations.

Offhand, you should have a nice display of the entire all-transistor line, and we will make sure that you will have some samples to show of the new ROYAL "500E." In other words, your all-transistor display should consist of the "250," "275," "500E," "675," "710," "755" (this is new to replace the ROYAL "750."), "760L," "1000D," "850," and "950." There should be no problem in the availability of these sets, but on the new models, we have good reason to believe we will be able to get off a few to you for this showing.

It will, of course, be nice to have an attractive display of stereophonic instruments and be able to demonstrate them to your prospective clients. I do not think it is necessary to display the entire line, but certainly you should be able to pick the more or less basic models that you feel would be entirely adequate for the purpose.

I suggest you look over our line and let us know, as soon as you possibly can, what models you will need over and above what you already have available for showing in your hotel setup, in connection with the National Radio Show. Give us the first and second choices, so we will have some flexibility over here, in the event the availability on a few of those models and finishes you choose is very critical. You should also tell us the latest possible shipment from New York, so we shall be guided accordingly.

Now as to disposition of these samples at the end of the Show, I do not quite understand your remark on this. I believe we can handle models over and above the basic group that you are marketing, as follows. We would send those instruments to you on the same basis as we are doing now, billing them to you, but payment to us may be withheld until after the Show. If you decide to keep them, you then pay us for those specific sets. In the case of other instruments that you may not be particularly interested in, but which may appeal to a few individuals who have seen and heard them, I suggest they be sold outright to those individuals at your exact landed cost, and the proceeds of such individual sales can then be remitted to us, to liquidate our billings for those sets. Certainly, I would hate to ship too many samples of stereophonic jobs to begin with, particularly involving types that you do not feel could be sold after the Show to private individuals who would be willing to buy them at your landed cost. I would not wish to have any of these sets returned to the factory, because that will really involve us in a lot of unnecessary expense and inconvenience.

Apropos to this situation, you can also tell us what kind of display material you want from us for this purpose, and we will see that it is forwarded to you together with other Show items. In the case of that display material you can, of course, keep it after the show with our compliments.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

July 28, 1959

John A. Miguel, Jr.
Vice President
in charge of export

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

We have given a lot of thought to your letter of July 16, which outlined your proposed advertising program for the Fall and Spring seasons, involving a total expenditure of approximately 14,000 pounds sterling. It has been further noted that the proposal is advertising on a national scale only and does not include such local advertising as will be handled by dealers, either wholly for their own account or on a co-op plan with you.

It is our feeling that under the conditions confronting ZENITH's entry into the British market, the advertising program you propose is somewhat ambitious. Under a more favorable marketing climate, it would be a swell program to support sales, and it could be that some similar program would be in the offing after we have had more experience in the market and a few of these basic problems we are confronted with today are ironed out.

As I mentioned to you over the telephone the other day, it seems to us that a more practical and realistic approach, to help you in the distribution and marketing of ZENITH radios, would be for us to help you in the matter of prices,

rather than on advertising. Any assistance that we could give you on prices would, at this time, provide more all around benefit than any assistance we could give you towards the advertising scheme proposed. Actually, from the standpoint of cost to ZENITH, we would be contributing more, we think, by reducing profits on the sale of the basic models you are marketing than any contribution we can possibly make towards your advertising program over a period of the campaign. Thus, it is along the line of possible special prices to you that we have concentrated in having our management group approve an assistance program, to support your efforts in the successful introduction and marketing of ZENITH radios. This matter of special pricing will be dealt with in a separate letter we are writing you on the subject.

In closing, we would like to say that we are impressed with the planning, thinking, interest, and effort that you have given, in order to achieve the highest possible measure of success in the distribution and marketing of ZENITH radios in U.K. The advertising study and scheme that you have submitted to us is but one example. In expressing our opinion about your advertising program, please believe me, no criticism is meant or implied. Under normal conditions, your scheme would be ideal, but I think you will agree with us that, under present conditions, we are wiser and better off to have explored the other more practical and realistic avenue of help—and that is, in the matter of special pricing.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
in Charge of Export

July 28, 1959

Mr. A. R. Ramsay
United Mercantile Company. Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

Special Prices

It is a pleasure to announce to you that our management has approved a program that we have worked out on a special price offering to you based on quantity purchases. We have included in this special quantity price program those models, which you have already ordered in good quantities and those that are likely to be ordered later on. However, should you find that some other model or models have possibilities later on of being purchased in good quantities, please advise us and we will do all possible in working out price concessions on those additional sets.

Here is the new pricing schedule:

Model	Regular Price	Special Qty. Price	Minimum Quantity	Co-Op Adv. Accrual
ROYAL "250"	$ 26.92	$ 24.42	200	$ .34
ROYAL "275"	31.55	27.34	200	.38
ROYAL "500L"	43.42	32.23	500	.45
ROYAL "675"	31.55	27.62	200	.39
ROYAL "760L"	58.92	51.05	100	.75
ROYAL "1000D"	147.63	119.80	50	1.63
B600	75.34	68.48	50	.97
C519	23.97	21.78	50	.34
DPS80C	77.97	70.88	50	1.11

The foregoing prices are net, f.o.b. factory Chicago, in domestic packing, including provision for the private agreement. They are effective immediately in the quantities indicated, but it is understood that they are *not retroactive* to shipments already effected. Following our regular policy, both model offerings and prices are subject to withdrawal or change without prior notice.

In the case of the ROYAL "250," "275," "500E," "675," "760L," and "1000D," prices quoted exclude batteries. On the B600, price quoted excludes both the battery pack and the 220 volts ballast adaptor. The price quoted on the C519 does not include the 220 volts stepdown transformer and the 50-cycle clock rotor. Likewise on the DPS80C, price quoted excludes the 50-cycle idler wheel and the 220/110 volts stepdown transformer.

You will note in the last column under the heading "Co-Op Adv. Accrual" a specific sum for each model. In other words, with the offering of the special quantity prices, that portion of our regular export cooperative program, in the case of the generation of accrual funds, is not applicable. Under the co-op plan, as I advised you, there is provision for a 2½% to generate accrual funds. Under the special pricing program, this has been superseded by the specific sums per set, as indicated on the first page of this letter. I do not recall if I sent you a copy of the export co-op plan book, so I am sending you a copy attached hereto, for your information and guidance. Of course, shipments that already went out, billed to you at the regular prices, carried the regular 2½% accrual. If you have any questions about the operation of the co-op plan, please do not hesitate to ask us.

You will also note that we excluded from the list the all-transistor clock-radio ROYAL "850," of which you have given us an order for 1,000 units at the very special price of $37.41. As this is a one-shot proposition, because I do not anticipate we will have any further availability beyond the

850 still pending against your order, we did not feel it necessary to include this model in the special price program.

The minimum quantities we have indicated, I believe, are reasonable. There may be instances where we may not be able to ship the entire minimum quantity you have ordered, owing to short supply. Of course, in those instances, you will still be billed at the special quantity price.

The special quantity prices now provide you with an excellent opportunity to market and merchandise our radios in a manner not possible before. Thus, we are looking forward to your favorable response and to the receipt of substantial orders for this merchandise.

Kindest personal regards and best wishes.

Sincerely,

J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Enclosure
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
in Charge of Export

July 29, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

This is with reference to our telephone conversation the

morning of Monday, July 27. and to your letter, reference 3117, dated July 24.

We are pleased to note that you have started opening your first accounts and that acceptance of the ZENITH sets, with respect to quality and design, has been very good. As to the price question, the reaction was not unexpected, but I am confident that with the recently approved special pricing structure, the price matter will be alleviated significantly. It is too bad the comparison always has to be made with British products, but, in time, perhaps a more compatible comparison will be established based on the general run of imports.

I was glad to note, from our conversation, that the goods have been finally cleared and that you have started to make deliveries to newly appointed dealers; also that you will have a press conference the 14th of August.

Now that we are approaching the height of the radio selling season this year, it is very important that your orders be in our hands as soon as possible. No doubt, after you receive our other letter on the special price deal, you will cover your requirements immediately for shipments in August, September, and if possible, October as well. You see, it so happens that from August to November, we will also be in our busiest selling season and, although production facilities have been upped to the maximum we can, production will not be sufficient to meet the demand of all, and we will have to resort to allocations against firm orders on hand. This is especially true on those high volume, well accepted models—as the "500E," "250," "1000," etc.

You inquired, in the course of our conversation and your letter under acknowledgment, about price concession on quantities. This has been answered in another letter, so I am sure you will be very happy with the special offerings that we are in a position to make to you at this time. I have also indicated to you, in one of my recent letters, about the

availability status on the ROYAL "500E." A sample, as I told you, was already airshipped and should be in your hands about the time you receive this letter, if not before.

Regarding the ROYAL "760L," this is indeed a high performing quality 2-band all-transistor receiver, covering the standard broadcast medium band, as well as the full longwave spectrum, which covers European longwave, as well as weather/navigation frequencies. True, this is not a low price set, but, for what it offers, it is very definitely the best that is available in the field today—of US or foreign manufacture! In one of your recent orders you ordered two samples of this model, and they are going forward by Parcel Post immediately. However, even before you receive the samples, you should consider placing your initial stock order for this model, ordering at least the minimum quantity to qualify for the special price, which incidentally is a very attractive one.

We realize the sales handicap of not having the European longwave band in the transistor pocket set—like the ROYAL "500E." I am doubtful that we will ever have a good performing pocket-size set, embodying all those characteristics, but I thought you should know that our people in France and in Switzerland somehow have succeeded in incorporating the longwave feature in the ROYAL "500." However, it is a local job, without our official sanction, but, to the best of my knowledge, it has served the purpose. If you care to have some details about this, I might be able to get them for you for further consideration. It was quite a pleasant surprise to note that there is rising interest in our present AM/FM radios. We are getting for you information on the installation of a 220/110 volts transformer inside the set, and as soon as we have the information from our Engineering Department, it will be passed along quickly.

We are checking on the availability of the models you have ordered for the Radio Show, and in another day or two, I

will advise you definitely how this matter stands.

Models ROYAL "500E" and ROYAL "760L" should definitely be included in your range to cover the U.K. market. The "500E" is a prestige pocket set—the best of its kind in the world today—and with the kind of publicity and reputation that this model has established over the years, many a Britisher, who can afford to buy an all-transistor pocket radio, will be asking for this model. The individual inquiries we have received indicate strong interest, and with its availability in Britain, it could give you quite a surprising nice volume. The ROYAL "760L" is a performing fool and one I am sure will find no counterpart in the local market, so you will not have much competition to worry about, except the fact that it is not priced for the mass market. Incidentally, I would like to have the "760L" tried out in the Southern England and Midland districts and see if this model will not provide satisfactory reception in the daytime, where other regular radios fail.

Kindest personal regards and best wishes.

Sincerely,

J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

Mr. John A. Miguel, Jr.
Vice President-Export
Zenith Radio Corporation,
6001 Dickens Avenue.
CHICAGO 39.

Ref: ARR/GS/3152
4th August. 1959

Dear Mr. Miguel,

This is to acknowledge with thanks your letter of the

27th July, three letters of the 28th July and letter of the 29th July.

1) Your letter of 27th July—Ref. AR/mg No. 3062—Art Work:

We took notice of all your remarks and since we have received a letter from Mr. Jack Sullivan who sent us specimens of various export advertising and suggested that we let him know which art work can be of interest to us.

We wrote to him today as per enclosed copy.

Some of your export adverts are definitely very good for the British market while for some of the newspapers and trade papers we must make up our own, but you will notice that whatever we do in this Country is in line with your own style and policy in this respect.

2) Prices:

Your letter of the 28th July with new prices has been greatly appreciated and we confirmed that in our cable to you. Also, the quantities mentioned by you are very reasonable indeed and we do not see any difficulty whatsoever in achieving these quantities, but we would like you to let us know whether you expect that every shipment consists of a total minimum quantity of any particular model or you would agree that say a minimum quantity is taken up over a reasonable period of time.

The only item which we may not take up in minimum quantities is the DPS80C, b[redacted] we shall be able to judge a little better after a few weeks.

We only regret that you cannot make these reductions retrospective. If your Committee of Management would decide to apply it to the past shipments we would certainly bless them.

Although the minimum quantities are very reasonable it is very difficult for us at this very moment to decide particularly on the colour assortment as you realize that British taste is different from American and that was the

reason in our cable of the 31st we indicated only some colours.

As you are aware, the Radio Show is starting on the 25th instant and that will give us an excellent opportunity to have reaction of buyers from different parts of the Country as far as colours and types are concerned. Nevertheless, within the next week or so we shall send you a shipping schedule covering at least 2/3 months.

3) Publicity:

We do fully appreciate your attitude in this matter and we have no doubt that you were to a great extent guiding yourself by the Market Report sent to you previously. We do agree that the Market Report is no doubt of a very pessimistic side but, as indicated to you in previous letters and telephone conversation, it seems to us that the Zenith radio will not be as exclusive as the Rolls Royce and that many more people will buy it from what we anticipated.

Your recent reduction of prices gives us the possibility to execute at least a certain proportion of our advertising programme which is so necessary to promote this new article in U.K.

I would like you to assure your Committee of Management that any price reductions which were made in our favour will ultimately bring benefit to the sales of Zenith in Britain and we do hope that a very large regular market will be created.

4) We are enclosing our further Progress Report No. 2. from which you will see how things are progressing and if there are any remarks or criticisms which you would like to make, please do not hesitate—it will be accepted in the spirit of friendship and co-operation.

Yours sincerely,

Encls.

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

August 6, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

This refers to your recent inquiry about the conversion of our AM/FM radios for 220 volts, 50 cycles operation. I regret the delay in passing on this information to you, but our Engineering Department had to examine, and even had a stepdown transformer built in our lab, to determine whether or not such a suitable stepdown transformer can be located inside the set.

Our AM/FM radio models—C724, 725, 730, 835, and 845—will require a 40-watt stepdown transformer of a size that can be installed inside the set. Please note, however, that this 40-watt stepdown transformer is not currently available, but in the event there is strong interest in marketing our AM/FM sets in England, we will seriously explore the possibility of manufacturing such a transformer here. Of course, the alternative—which we believe would be more economical—would be for having such a transformer procured locally and, in this connection, we will provide you with the basic electrical and mechanical specifications, as developed by our engineers for specific use in the above listed AM/FM sets.

You will note that we did not include in the above list of AM/FM sets the B728, which is an AM/FM clock radio; in

fact, this would also apply to new models of electrical and mechanical specifications of the B728. It has been determined that there is not enough room to mount the transformer inside the set. While it can be used from 220 volts, the stepdown unit will have to be placed outside the set, which, to say the least, would be unsatisfactory to the consumer.

If you need further information regarding our AM/FM line, please let us know.

With all good wishes.

Very truly yours,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

Kensington 6025
Ref:ARR/GS/3185
10th August. 1959

Mr. John A. Miguel, Jr.
Vice President—Export,
Zenith Radio Corporation,
6001. Dickens Avenue.
Chicago.39.Ill.

Dear Mr. Miguel,

re: AM/FM Radios

Thank you for your letter of August 6th and we have noted all your remarks regarding conversion of AM/FM range to 220 volts, 50 cycles operation.

It is very difficult for us to judge in advance what public reaction and demand will be until we can show the models and demonstrate performance.

In the circumstances, we shall be obliged if you can arrange for two sets of each C724, 725, 730, 835 and 845 in assorted colours (except green which is a very unpopular

radio colour in U.K. to be sent to us at your earliest convenience, but all these sets must be fitted with the stepdown transformers.

It may well be that it would be more economical to have transformers procured locally but in view of the quality of the set and accordingly its price, we are very unwilling to have sets messed about here and we prefer to have them properly completed and tested by the Factory.

As far as the clock radio is concerned, we do not think that there will be sufficient interest to justify any work regarding conversion.

With all good wishes.

Yours sincerely,

R.

P.S. We shall be also most obliged if you will kindly advise us whether it would be possible to get a special price on minimum quantities of AM/FM radios and this information is of great importance because it will assist us in fixing retail prices in U.K.—which will certainly influence the volume of sale.

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

August 20, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

We have your letter of August 10 with further reference

to the AM/FM radios for 220 volts, 50 cycles.

We have started processing to convert and ship to you samples of the 724, 725, 730, 835, and 845 for 220 volts, 50 cycle operation. This conversion will be done in our Engineering Lab and the 220/110 volt transformer samples will be built specifically for this purpose, all of which, I am sure you realize, will entail extraordinary expenditure on our part.

After you have received the samples and determined their marketability, you will no doubt want to place larger orders for stock, to support a marketing program on AM/FM that could be of some consequence. So there will be no misunderstanding, I would like to tell you this now. Such stock orders can be handled by us only if we do not have to install the 220/110 volt transformer on the chassis inside the set, and furthermore, that you will see fit to order a quantity of 220/110 volt stepdown transformers that we could stock here for your own account, to cover specifically your own requirements for AM/FM sets. I do not believe that our factory will entertain an order for less than 100 units of this stepdown transformer. It also means you will have to find ways and means of installing the stepdown transformers inside the sets in your service shop.

I am sorry, but at this time, there is no basis to quote you a special price on minimum quantities of these AM/FM sets. Let's tackle this question after you receive the samples and know more about their marketing possibilities in your country. Also, rather than have us establish minimum quantities, you suggest the quantities for each model that you are prepared to undertake.

With all good wishes.

Very truly yours,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice-President
In Charge of Export

August 21, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

Thank you for your letter of August 4, reference 3152.

We are pleased to note that some of our export advertising, along the specimens sent you by Jack Sullivan, will be suitable for the British market. Recently I approved new ROYAL "500E" ads in English, proofs of which Mr. Sullivan will be sending you shortly. I hope you like them.

On the special price matter, you are indeed getting extraordinary help—unprecedented in our export history! I am happy you agree that the minimum quantities we have set, to qualify for these special prices, are reasonable and within the economic possibilities of your market. I do not wish to appear persistent and demanding about this matter of minimum quantities, but, unless that condition is met, this special pricing structure for you may be recalled. Thus, please give instructions to all concerned who write up your orders to make sure that you live up to the minimum quantity prices, if you expect us to bill the merchandise to you at the special prices. Of course, it is always best and most preferable that your order not only cover the minimum quantities specified for each model, but also that financial arrangements are such as to permit single shipment, availability at the factory permitting, of the entire

order. On the other hand, we would give consideration to cases where the minimum quantities are ordered, but shipments are spread out over a reasonable period of time, not exceeding 60 days. Let us be conscientious and realistic about this matter, because if it is abused or led to deteriorate through an oversight, this special pricing arrangement will be thrown out. There was a very definite purpose, in our management going along with this idea, and it is two fold—to help promote and sell more ZENITH sets and to make it possible for you to price our merchandise more realistically. Once you have an idea of the trade acceptance to the various models, it is important that you send us orders to take care of your requirements, permitting us to make scheduled shipments as far in advance as possible. You already know the trouble we are in today on the ROYAL "1000D" and to a smaller extent on the ROYAL "500E." As we will be working on an allocation shipment to fill all distributors' orders, you can appreciate how vitally important it is that we have in our hands your orders for this merchandise, even those for shipment in the next 2 or 3 months.

We have no quarrel about a publicity program that is realistic and compatible with sales possibilities in your market. I am glad to see, in this connection, that our special prices have given you the means to put into operation a portion of your advertising program, to create a permanent market for ZENITH products in Britain.

Your Progress Report Number 2 is heartening and provides some interesting highlights of your activities and planning. In a market such as yours, I am sure you are taking every precaution to see that you advertise, publicize, and otherwise promote only those models that are already in your stock or are definitely enroute. Our availability situation has worsened considerably since your visit at the factory and models that in June were considered in good

availability today are in critical short supply—like the "1000D" for instance. On the new ROYAL "500E," be sure you have supplies from us before you go ahead in spending a lot of money advertising, publicizing, and introducing this model. Also, even when you have supplies, you must make sure that you have a sufficient quantity to go around to all your dealers; otherwise, you will have a very serious problem with a few dealers. I observe from your dealer list that all are in London, with the exception of Messrs. Regent Radio in Jersey of the Channel Islands. I do not mean to be critical, but I am just curious, because I recall when you were here you mentioned that in all probability, you will start your marketing scheme in the Midlands. I hope that in the next Progress Report Number 3, your list of appointed dealers will cover many more names in London and possibly other cities.

Kindest personal regards.

Sincerely,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

Kensington 6925
Ref: ARR/GS/3303
24th August, 1959

Mr. John A. Miguel, Jr., Vice President,
Zenith Radio Corporation,
6001 Dickens Ave.,
Chicago 39, Ill. U.S.A.

Dear Mr. Miguel,

Thank you for your letter of the 20th August and I am glad that you are writing in a frank and straightforward manner and I understand the spirit in which your letter is written and, certainly it is much better that in future we continue to be straightforward and get off our chests whatever we feel.

There is very little doubt that your complaint is justified to a very great extent but I would like to mention that since I came back from Chicago, certain developments here regarding the trade mark business have upset my plans to a great extent and no doubt yours also.

Although I have no doubt that the litigation going on at present will be successful, nevertheless it has upset my plans very considerably as far as the financial side is concerned. We have to go carefully forward and in the present circumstances as long as litigation is outstanding there is no question whatsoever of having any financial facilities available to us in England.

I have written to Mr. Peirels on the 21st August regarding the 1,000. 800's and have sent additional firm order to cover the balance outstanding. I have mentioned that very shortly we shall make adequate financial arrangements so that there is always a balance outstanding in our favour with you, particularly as very often it may happen that extra shipments may be required.

For reasons mentioned in my other letters it is very difficult for us at the present time to give exact shipment date and assortment of colours, but we shall be able to do so in approximately three weeks, after the Radio Show.

For your guidance, we have for example needed badly some of the pink 850's which we specifically mentioned in our cable order which is being shipped now, but I regret to notice however that instead of sending us the ones we wanted so badly your People have sent us different colours.

I am sure that you do realise that this organising stage of the Zenith business in England is a very difficult one as for the first time in years American quality goods have come to this Country and it is very easy to make mistakes and, therefore, if there is any delay in some of our actions it is dictated purely on careful attention of the market requirements and will result only in final benefit to Zenith.

Yours sincerely,

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

August 27, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

We received a clipping of an article—which appeared in the Sheffield Telegraph of August 14, written by Alan Morris—about ZENITH's entry in the British radio market. No doubt, this is one of the stories that developed, resulting from the press conference you recently held.

Mention in made that the American ZENITH sets will be priced from 32 pounds to 175 pounds, ranging from a pocket size receiver to the deluxe all-transistor TRANSOCEANIC. Could you tell us if these reported retail prices have been based on the special quantity prices; also to what specific models they apply. I have been using the multiplier of 3.35, to arrive at approximate retail prices in England and I am wondering if there is another factor not previously considered in arriving at approximate retail selling prices of the imported ZENITH sets?

I would appreciate the benefit of your advice on this pricing matter.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

Kensington 6925
1st September, 1959
Ref: ARR/GS/3409

Mr. John A. Miguel, Jr.
Vice President,
Zenith Radio Corporation,
6001 Dickens Ave.,
Chicago 39, Ill. U.S.A.

Dear Mr. Miguel,

Thank you for your letter of the 27th August.

As far as the prices of the Zenith sets in U.K. are concerned, I am enclosing our printed price lists which will give you all the details, but as far as the mark up is concerned I would like to explain the following:

1) Originally, we intended to have a mark up of 3.35 which was based on 20% duty and in anticipation of a substantial contribution from you as far as publicity in U.K. is concerned.

2) Since, we had to readjust our calculations in view of the following happenings:

a) The duty which we shall have to pay will be higher than 20% as, according to British regulations duty is payable on price list goods of the manufacturers and not actual prices charged. Apart from that when distribution is done like ours—that means that all the charge of sales promotion and publicity is borne by ourselves, the Customs are charging an uplift usually of 25% which equals additional 5% duty.

The reason being that the Customs consider that if the sales promotion was done by the factory itself, the factory would have to charge higher prices.

We are now discussing with the Customs and trying to get the most favourable terms.

b) Whenever we sell to shops which are in a group of shops (chains) we must grant additional discount up to 10% which is the usual custom in the trade.

c) It has proved necessary in some of the sets to adjust the IF which is different in the American sets (455 kc in your sets, 470 kc. in British sets, which makes additional cost from approximately two to three dollars per set. Without this adjustment we get a very bad whistling noise.

Kensington 6925

—2—

Mr. John A. Miguel, Jr. 1st September, 1959

2) In order that we arrive at a reasonable profit which would allow us to carry publicity etc. we should work on a multiplier of 3.75 but as our price lists were made before final price fixing was done by you the multiplier varies on various sets from 3.29 to 3.82, which gives us a fair average.
3) As far as stereophonic equipment is concerned, as it is already very expensive and we are anxious to promote sales as much as possible, we kept down to a multiplier of approximately 3.2.

In fact, this multiplier is much lower as we did not anticipate that the shipping charges would be so high on this merchandise and the transformers for the big instruments cost as much as $11.

Below, I am giving you all the multipliers relating to particular sets as it certainly may be of interest to you:

250	3.66
275	3.78
500	3.82
675	3.75
760	3.78
850	3.29
1000D (air)	3.76
1000D (ship)	4.11
B600	3.72

With kindest personal regards and best wishes.

Yours sincerely,

R.

ZENITH RADIO CORPORATION,
6001 Dickens Ave.,
Chicago 39, Ill.,
U.S.A.

ARR/MH/3459

Re: DPL 6, DPS 30 and DPS 501. 8th September, 1959

With reference to your recent press release regarding the above models please kindly advise us whether there is any possibility of having Step Down transformers inside the cabinets.

This is an essential condition if we would have to market these models in the United Kingdom as the public does not want to have transformers outside the units.

for UNITED MERCANTILE COMPANY LTD.,

R.
Director

Kensington 6925
Ref:ARR/GS/3525
15th September, 1959

Mr. John A. Miguel, Jr. Vice-President,
Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39.Illinois.

Dear Mr. Miguel,

I refer to the recent shipment of stereo equipment which you were good enough to send us for the Show and I would like to make a few remarks regarding the quality of instruments sent to us, but I presume that any faults which we have discovered may be due to the fact that the models sent to us were not brand new stock pieces but taken out from one of your showrooms.

The faults which we have found are as follows—

MODEL SFD2575	One channel and the stereo was not working and had to be adjusted by our Engineer. Re cabinet work, the doors leave an uneven gap when closed and metal fittings on the doors are fixed at different levels.
MODEL SFD2530	Spindle for 45 rpm missing.
MODEL SFD288	Door not closing and very roughly finished—needs adjustment.

As these instruments are very highly priced our customers expect the most perfect execution and as I mentioned at the beginning of my letter I presume that any instruments which are ordered regularly will be perfect.

With kindest regards,

Yours very truly,

R.

ZENITH RADIO CORPORATION
6001 Dickens Ave.
Chicago 39, U.S.A.
International Division

September 16, 1959

United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Gentlemen: RE: DPL 6, DPS 30 and DPS 50L

Kindly refer to yours of September 8, your reference ARR/MH/3459, regarding possible installation of step-down transformers inside the cabinets of the DP units as outlined

above.

The DP6 and DPS30 are not operable on other than 115 volts, 60 cycle, AC.

By copy of this correspondence, we are requesting our Engineering Department to ascertain whether or not the DPS50L cabinet will accommodate the step-down transformer, and we will advise immediately upon said information being supplied to ourselves.

Yours very truly,

/s/ H. L. GRIMM
H. L. Grimm
International Division

HLG/cl
AIR-MAIL
cc Alex Gorbunoff

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois
Cable Address "Zenithrad" All Codes
International Division

September 17, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

We would like to take a moment, to discuss in part, our operation in relationship to the Credit Department.

All orders processed through the International Division are referred to said Credit Department for approval prior to scheduling for release.

In short, our Shipping Department will take no action whatsoever unless the "stamp of approval" is affixed.

We are cognizant of the problems with which you have

been faced from every standpoint heightened by the present litigation.

We, in a sales capacity, are concerned primarily with sales. Personally it creates an ulcerous internal condition to view, from ones standpoint, the sales angle and to be confronted, on the other hand with the financial angle.

We do not feel that any of us are in a position to disagree that we need someone to ride herd on the all important final aim—collections and profit.

Your present debit status is somewhere in the neighborhood of $2,800.00—a portion which is accounted for by the Fair items which Mr. Miguel agreed to ship on an open account basis—anticipating your payment within the time specified. An additional part of this indebtedness is due to the 5% uncollected from the bank, on your letter of credit shipment, which our Mr. R. M. Carstens is covering under separate correspondence.

As indicated above, we are extremely sympathetic, but at this point, more or less caught in between. We trust you will understand, in view of the above, why it is impossible for us to release shipments from the factory prior to the proper financial coverage.

Certainly you have more than clarified your position in your correspondence to Mr. Miguel, and we do not feel that it should be necessary for you to repeat the information which you have already supplied in answer to this correspondence. We took this opportunity to clarify our position in hopes of a little better understanding on the part of all concerned.

Kindest regards.

Yours very truly,

/s/ H. L. Grimm
H. L. Grimm
International Division

HLG/cl
AIR-MAIL
cc Permanent file

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois
John A. Miguel, Jr.
Vice President
in Charge of Export

September 18, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

Thank you very much for your letter of September 1, reference 3409, on the matter of local pricing.

We appreciate that the 3.35 multiplier was purely an estimate and that you had to face the realities after you have had some experience in determining actual cost of the merchandise, obtaining better feel of the market, and to take into consideration other factors, which were not apparent when we discussed this matter during your visit here.

The information you have given us on cost and other marketing factors is illuminating and much appreciated. There are, however, a couple of questions we would like to ask.

We are very much surprised about the duty situation. We want to know more about the British customs' regulations that the 20% duty is payable on the price list, rather than on the actual invoice price. What do they mean by price list, and please give us a concrete example. We also do not understand the uplift of 25% of the duty, because of the sales promotion and publicity underwritten by you? Write us about this and we will analyze the situation and give you a letter that you could use in obtaining relief, from what

I consider arbitrary ruling on the part of your customs people.

We also want to know why it should cost $2 to $3 per set, to adjust the IF to British standards? Incidentally, we are asking our Engineering Department to give us a report on this IF matter.

On the list of multipliers you are using individually for every model you are marketing, we are wondering why you are not using the lowest multiplier on the price leader transistor model ROYAL "250," as we note that you are using this on the cordless clock-radio ROYAL "850." Also, are to assume that you have two sets of prices on the ROYAL "1000D"— cheaper when ordered by air shipment than by regular ocean liner? If such is the case, all the "1000D's" should be ordered via air shipment.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. MIGUEL, JR.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

September 18, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

Although late, we want to acknowledge and thank you

for your two letters dated August 24, references 3299 and 3303, concerning several matters.

First, in connection with minimum quantities we have stipulated you have to order to qualify for the special prices, we certainly want to be as fair and realistic as possible, serving at the same time our mutual interests. After reviewing our recent shipments to you and taking another good, realistic look at the entire situation there, we are willing to reduce the minimum quantity requirements to qualify for the special prices, as follows:

ROYAL "250"	from	200	to	100 units.
ROYAL "275"	from	200	to	100 units.
ROYAL "500E"	from	500	to	200 units.
ROYAL "675"	from	200	to	100 units.
ROYAL "760L"	from	100	to	25 units.
ROYAL "1000D"	from	50	to	20 units.
B600	from	50	to	20 units.
C519	from	50	to	20 units.
DPS80C	from	50	to	20 units.

Under this new, lower minimum quantity lineup, it is believed that your ordering will be facilitated and brought in line with realistic shipping releases, avoiding unnecessary back ordering and bookkeeping. Also, we want to avoid a lot of unnecessary correspondence back and forth about bringing your orders and the minimum quantity requirements into balance and following you up on shipments of back orders, etc.

There is no doubt that the matter of color plays a very important part in your marketing activity, and thus, it is very important that you choose those colors and finishes that sell well in the market. What is true in your territory may or may not be true in other places, and for that reason, we usually have quite an extensive variety of finishes and

colors, multiplying production, stocking and merchandising problems several fold. From facts based on statistics and sometimes hunches, we order on the factory quantities of each color or finish. By and large, our batting average has been good, but there are instances where we have released either too many or too few of a given color or finish. You, of course, have the right to order our models in the exact quantities of colors and finishes of each model you desire, with instructions not to alter those specified quantities, unless you have authorized us to do so. Of course, you must realize that in those cases, there will be attendant delays in allocations, resulting in corresponding delays on shipments from the factory and meeting steamers in New York. If you give us some leeway in your ordering, it would be helpful, but it is not absolutely necessary, provided you realize what you are up against without giving us that measure of flexibility.

I am very happy to note that you have taken and accepted our letter of August 20 in the spirit it was written. We must be candid and sincere with one another, sometimes even when it hurts. I believe that development of our commercial relationship on that candid basis will be immensely helpful to both of us.

Now, regarding the ROYAL "850," you released and we shipped a total of 250 units, against the negotiated order for 1,000 units at the very special price offered on this job. The reason we prodded you on the $5,000 deposit to secure the order, was because it was on that basis that the order was negotiated and mutually accepted. Actually, the need for the $5,000 deposit was, more than anything else, to secure the merchandise for you, so we would not peddle those units elsewhere. We realize that other factors came into the picture, causing you not to send the $5,000 securing deposit. It is all right with us, but of course you must realize

that we are no longer under obligation to you to have available the entire 750 units, if and when you give us further shipping releases on the ROYAL "850." We have also been in an unbalanced situation on this job with respect to colors, in that the pink version ROYAL "850V" is not available. Our present availability is concentrated on the ROYAL "850W"—white—and the ROYAL "850C"—gray—in a ratio of approximately 2 to 1 in favor of the white. Since this model has been discontinued, there will definitely be no other colors to become available beyond what we now have.

We definitely share your view that entry into the British market is not an easy one and serious marketing mistakes cannot be afforded. We have a full understanding of the situation, under which you have to operate, and—as you already know—we have not established minimum allocations or quotas you should take, except in those cases where minimum order quantities are specified to qualify for special quantity pricing. Even in the latter case, we have seen fit to reduce those minimum quantities, so your marketing program will not be burdened with heavier stocks than you would normally require to support your program. All we ask is that the orders you place be programmed on the basis that they are firm orders, shippable within a reasonable period of time and so scheduled to provide you with a normal but satisfactory turnover. We want to avoid situations caused by over optimistic estimates or buying.

With all good wishes.

Very truly yours,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

Kensington 6925
Ref: ARR/GS/3567
22nd September, 1959

Mr. John A. Miguel, Jr., Vice-President,
Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.

Dear Mr. Miguel,

Thank you for your two letters of the 18th instant.

1) Minimum Quantities:

I was pleased to see that you have reduced the minimum quantities for various items and although I do not anticipate that the original minimum quantities could not be taken up, I agree that the reduced quantities will be more convenient from the shipping point of view.

As far as colours are concerned naturally there is a preference in every market, as for example no green radios are saleable in U.K. but, nevertheless, we can always influence the buyers to some extent as far as colours are concerned and, therefore, it would be helpful if your people will indicate to us which colours they prefer us to take.

2) Royal 850:

I read with interest your remarks regarding our order for the above and I must admit that I did not realise at the time the order was placed that you have abandoned the manufacture of this item. In fact, I believe that for an item which is discontinued your reduction in price was relatively small in relation to items which are regularly produced.

Up to now, including the shipment which is coming forward now on the last Letter of Credit, we have taken up 400 pieces, and shortly I hope to be able to take some more, but as far as deposit is concerned I must mention that I

spoke to Mr. Swislotzky about it who mentioned to me that he had a talk with the factory and that a smaller deposit would be sufficient and in fact at that time we remitted $2,000 which later has been used by various small shipments.

3) Shipment Schedules:

As you have noticed from the orders placed recently, we are placing the orders well in advance to cover the next 2-3 months and very shortly we shall be able to do it even better, for example we have discovered that the model which will sell least is the Royal 250 as there are plenty of six transistor sets of similar if not equal quality but much cheaper, while Royal 675 proved to be quite a good seller. The only pleasant mistake which I made in my original estimates concerns the 1000D which, although very expensive has no competition as far as quality and specification is concerned and we have sold all of them which you sent to us and that is the reason we have requested shipment by air.

4) Multiplier:

We have explained this matter to you in letter of September 1st but to make it more clear to you as far as Customs are concerned we are enclosing photocopy of the relative paragraph from the Customs and Excise Act.

I fully agree that it is an arbitrary ruling but it seems that the Customs have only one thing in mind and that is to get as much money as possible.

Regarding the IF adjustments, as mentioned to you previously this is necessary only for certain districts and we had correspondence with your Engineering Department on this subject.

I would like also to mention that any adjustments or amendments to your sets which have to be made locally prove very expensive, for example fitting of a new rotor and transformer to the C519 costs us actually 4 dollars and

when calculating for future prices of AM/FM sets we have to take this into consideration.

I feel very unhappy about our Engineers having to do these jobs as we prefer to deliver the sets to the customers untouched by anybody, but it appears that fitting of transformers by your people is too difficult from the production point of view.

As far as prices of Royal 1000D is concerned, we have only one price as on the price list and we anticipate having to take most of the supply by air and it may prove also beneficial to do the same with the Royal 500E. Although air increases the cost it makes things much easier for us as we do not have the financial outlay for many weeks.

5) AM/FM Radios:

I had an exchange of cables with your people regarding the above and from the reply we understand that all the sets have been allocated already until end of the year and, therefore, you cannot consider any reduction. I do not know if it means that we cannot get any delivery, but should it be possible to save a few for us we are enclosing our order No. 24/59 as in view of the British mentality it appears that they have less objection to paying say £50 for a large size set than £40 for a small, although the performance of both may be equal.

6) General:

Although the sales are not spectacular, as I mentioned in my Progress Report I may be a little too impatient.

We are appointing new dealers and nearly every day we get repeat orders which is very gratifying. Naturally, if we were in the range of only 20% or 30% above British prices we would have swept the market in a most spectacular way.

I would like you also to bear in mind that the mentality of the British dealer is so different from the American; in fact they are selling today in spite of themselves and it is

quite a job to convince anyone to take up new lines and when they are convinced to do so they start with no more than an average of 3 to 4 sets.

Nevertheless, I have grounds in believing that within a year the British market will prove very interesting to both you and us.

Thanking you for all the co-operation you are giving us all the time.

With kindest regards,

Your sincerely,

Encls.

Kensington 6925
Ref: ARR/GS/3616
28th September, 1959

Mr. John A. Miguel, Jr., Vice-President,
International Division,
Zenith Radio Corporation,
6001 Dickens Ave.,
Chicago 39, Illinois.

Dear Mr. Miguel,

As you have noticed, we have placed up to now a few orders for the stereophonic instruments but the greatest obstacle in getting bigger business is, unfortunately, the price which after adding duties, transport and purchase tax reaches figures above anything available in U.K.

The model which we think could sell best is the SFD2530 and we wonder whether you would contemplate any reduction of price subject to a minimum quantity being taken up by us. Your comments will be appreciated.

I am taking this opportunity of sending you a page from the "Radio Retailing" on which you will find a good write-up on the introduction of Zenith to U.K.

With kindest regards,

Yours sincerely,

Encl.

R

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

October 13, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

I read with a great deal of interest your letter of September 14 and your Progress Report Number 3.

Frankly, I think that you have been doing extremely well to get started in your distribution effort. With the price factor as it is, you have to be extremely selective in your dealer appointments, confining your sales to only those who cater to a class of customers where price and price alone is not the determining factor. Of course, what is also encouraging to us is your report that every dealer you have appointed, who had the chance to buy and sell and the opportunity to turn over the goods, has placed repeat orders.

We received all the sales promotion and publicity materials you sent us, and we all find them well prepared in good, high taste and very compatible with the marketing program you have developed.

Although dealers have their peculiarities from one country to another, I have found that most of them as human beings and businessmen are amenable to possibilities of making more and more money. But, as you have found out, a lot of personal effort and contact is necessary. Also, repetition, patience, and continuity of effort will be required.

I believe you have done quite well in this connection, as, otherwise, your distribution timetable would have been seriously retarded.

I received the batch of trade magazines you sent us containing publicity stories and advertising on ZENITH, which you have placed locally. I note that they are excellent trade media of a class, I believe, even superior to what we have in this country. We like the publicity stories and the character of the ZENITH ads you have placed. I thoroughly agree with you that at this stage, and considering the money problem, it is well for you to have concentrated your advertising on trade rather than on consumer media.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. MIGUEL, JR.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

October 13, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

Thanks for your letter of September 22, discussing a number of matters brought up in our letters of September 18. I think that for the most part, generally speaking, we

are pretty well squared away on those subjects, but I will take up here a few of the points where I believe there is some question, or where you have inquired about specific information.

The color question is difficult to tackle, until after some experience. Now that you have that experience, I know you will be specific and insistent on the colors you want and we, too, will be more conscious of this factor; and if we cannot supply the color versions you want, we will consult with you and advise you what there is available.

I regret the misunderstanding on the ROYAL "850" in respect to the deposit question, etc. The $2,000 you sent was actually not treated as a deposit, because it was used up to cover small sundry shipments.

We have found quite interesting, if not pleasantly surprising, the types of sets you have been ordering recently. Some of those changes we anticipated would take place, particularly on the ROYAL "500" and the ROYAL "1000D." With your diversification into AM/FM and stereo jobs, I think that you will have a nice variety to offer the high-class English market.

I am somewhat surprised that you consider quite costly making the conversion locally on a number of sets where 220-volt transformers, etc. have to be installed. However, the situation here is not that we cannot do it; rather, it would be a costly proposition to set up special lines just to handle conversion of a few sets for your goodselves. The additional cost on such special setups will be quite high; in fact there will be no room to do it here, because all our present facilities are being utilized to the maximum, on account of the very excellent business we are enjoying in the US domestic market on all our product lines across-the-board.

In regard to the AM/FM radios, we did not mean that just because we are completely allocated through the end of

the year that we cannot get a few sets for you. However, those few sets in effect mean diversions from domestic allocations of sets that have already been sold. In that light, our management feels that there is no reason to reduce price and take a lesser profit, when no additional volume is involved, at least for the balance of this year.

In conclusion I want to say that we are heartened by your progress in marketing our ZENITH sets in Britain. We hope that it has been good business for you as anticipated and with the volume steadily going up, we can both look forward to a more satisfactory arrangement for both of us.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. MIGUEL, JR.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

October 16, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

We have for acknowledgment your letter of September 28, reference 3616, with regard to the stereophonic business.

We are pleased to see that little by little you are getting into this activity, although we realize that these instruments

have to be sold at fairly high prices, on account of the known cost factors and the application of the usual multiplier. This price question on such small quantities, we anticipate you could develop even at its best, would be relatively small, so that we could not use those quantities as an inducement or a lever to obtain special pricing, such as we succeeded in obtaining for you on the all-transistor sets. Besides, there is still the problem of the additional costs to convert those instruments into operation for 220 volts, 50 cycles. Our production of those consoles is pretty well controlled by the total allocations worked out for all the domestic USA distributors and for our export requirements. We would not be interested in making any special pricing deals on these stereophonic jobs, until such time as we see the possibility of some worthwhile "plus" volume.

As I commented before in one of my previous letters, you people certainly have come out with very nice publicity stories about the advent of ZENITH in the UK.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. MIGUEL, JR.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

October 16, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

The attached literature will give you an idea of a Merchandiser Gift Package that has been developed for the American home market to promote specifically the sales of the ROYAL "250" and ROYAL "275," although it can also be used to improve on the high pace of our ROYAL "500" sales.

I would appreciate your studying the possibility of using this Gift Package as a stimulant to sell our transistor pocket radios—the ROYAL "250," "275," and "500E." If there is interest and you are not going to be castigated by the high duty and purchase tax, we can work out a special deal for you on these Gift Packages with or without the carrying case, earphone, and batteries. Of course, this Package will be ideal for the Christmas promotion.

If you want a sample to look at before deciding, please let me know and I will dispatch one by air immediately.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Enclosure
Airmail

Kensington 6925
Ref:ARR/GS/3739
19th October, 1959

Mr. John A. Miguel, Jr., Vice-President,
Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.

Dear Mr. Miguel,

This is to acknowledge your two letters of the 13th and three letters of the 16th and in the first place I would like to thank you for the appreciation expressed by you regarding our work here.

It is most encouraging to find that you do understand the difficulties and problems which we are gradually overcoming.

In fact, we have now reached the stage that Zenith is in England to stay and the opening today of the Fortnum & Mason—Zenith Radio Department puts Zenith on the highest level and we hope that it will give us an opening to all the other leading Stores in U.K. and that is why this matter was so important to us.

Below I am replying to various points raised by you as well as writing about a few matters on which I would be obliged to have your comments.

1) Sales:

It is shaping out that the best sellers will be the 500 and 1000D as there is really nothing comparable on the market and, therefore, we are being forced to introduce into our permanent range the 755 and, at the same time, the 710.

A few days ago we confirmed a small order for 16—750's which were still remaining in your stock but we would like to place regular orders for the 755 and 710 subject that the price of these sets can be in proportion to prices which we are paying for other models.

I should be most obliged if you would kindly let me know as soon as possible what price you can quote us for these sets and I presume that the minimum quantity will be the same as for example for 760—i.e. 25 units, and we are enclosing our official order for these models presuming in advance that the price will be reduced accordingly.

If on the other hand you are not in a position to effect a substantial reduction, we are afraid we shall not be able to carry these models as the price in proportion to others will be much too high.

2) AM/FM Radios and Stereos:

There is no doubt that we can achieve a very nice turnover in these items but here again the price factor is of utmost importance particularly in view of the fact that our original calculations were made on the basis of the 3.2 multiplier which later proved much too low and as a result our profit on stereos, taking into consideration the cost of transport, transformers etc. is reduced to a level which is really not very economical.

A few days ago we sent you additional order for stereos and you can see that the quantities are going up and here again I would like to impress on you the necessity of bringing down the prices and I hope that you will be able to do so subject to minimum quantities and this reduction you will be in a position to apply to instruments on order.

We would like also to start stocking the DPS 50 for which there can be quite a good market. Here again please advise us about the price and minimum quantities.

As far as AM/FM Radios are concerned I understand the supply position but if again in this instance you can do something for us we are enclosing a further order, doubling the quantity ordered previously.

3) Gift Package:

Your letter of the 16th came just in time as we intended today to send you a cable asking you to send us a sample of the old gift carton ref. R8046.

We are very interested indeed in this item and we shall be obliged if you will kindly let us have the lowest price for it subject to quantities being taken up, the carton to include the carrying case and earphone.

As far as batteries are concerned, we would be very pleased to have Zenith batteries but we are afraid that the price will be too high; for your guidance we are now buying new Mercury batteries from Mallory in England and we are paying 2/2d each. To arrive at the same price in view of the duty which would be chargeable on Zenith batteries, you would have to charge us 23 cents.

With kindest regards,

Yours sincerely,

R

Encls.

Kensington 6925
Ref:ARR/GS/3759
20th October, 1959

Mr. John A. Miguel, Jr., Vice-President,
Zenith Radio Corporation,
6001 Dickens Ave.,
Chicago 39, Illinois.

Dear Mr. Miguel,

Please find enclosed the following:

1) A few copies of leaflet which we have printed in U.K. Please advise us whether you want any of these to be used whenever you get direct enquiries from U.K.
2) The advert which appeared in October issue of "Ango-American News"
3) Proofs of dealers' adverts which we do in local papers on a 50/50 basis.

Your comments will be appreciated.

Yours sincerely,

R.

Encls.

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

October 21, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

Following our telephone conversation of October 20, I recommended to, and got approval from, our management to quote you special quantity prices on our three latest transistor sets as follows:

Model Number	Regular Price	Special Quantity Price	Minimum Quantity	Co-Op Advertising Accrual
ROYAL "710L"	$36.60	$32.10	50	$ .46
ROYAL "755L"	47.97	42.03	50	.60
ROYAL "780L" (same as "760L")	58.92	51.05	25	.75

I sincerely hope that in light of the new special quantity pricing, you will have greater possibilities for marketing these new sets in the United Kingdom.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./ag
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

October 27, 1959

Mr. A. R. Ramsay
United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England

Dear Mr. Ramsay:

In reply to your letter of October 23, I am sorry to advise that there are no plans to introduce a 2 or 3-band all-transistor portable, or pocket radio, of a type that could compete with similar Japanese sets that appear to be having a field day on this class of merchandise all over the world.

I, too, know that there are several good Japanese sets in this category that are selling very well. They are priced very low, impossible to compete with. I have a couple of these sets at home, but I have been using them primarily for reception of the standard broadcast (medium) band, as performance on short waves is quite deficient.

Kindest personal regards.

Sincerely,

/s/ J. A. Miguel, Jr.

J. A. Miguel, Jr./m
Airmail

ZENITH RADIO CORPORATION
6001 Dickens Avenue
Chicago 39, Illinois

John A. Miguel, Jr.
Vice President
In Charge of Export

October 28, 1959

Mr. A. R. Ramsay
United Mercantile Company: Ltd.
Park Lodge, Park Close
London, S. W. 1, England

Dear Mr. Ramsay:

We have your letter of October 19, reference 3739, dealing with various subject matters.

From all indications from you, it looks like your entry into Fortnum & Mason has been highly successful and could well be the forerunner of your entry into other department stores in the United Kingdom. With such a high class store handling our line, even the smaller independent radio dealers will be spurned to handle and market our products with greater interest.

With regard to special quantity prices on the ROYAL "710" and ROYAL "755," as well as the ROYAL "780," we already quoted these prices in our letter of October 21. The minimum quantities are higher than you anticipated, but I believe there will be no problem in meeting the requirements with further orders beyond the initial one for 25 each of the "710" and "755." I have approved billing that order at the special quantity prices on the presumption that additional orders will be placed in the near future to make up the difference.

On the AM/FM radios and stereophonic instruments, the supply situation has been very critical, and frankly, this is

not the propitious time to ask our management for price reduction, even with the incentive of larger orders. I note your comment regarding the possibility of the DPS50. Before freezing on a program involving this model, I suggest you have a sample brought in by air to examine its performance possibilities at the regular price and the kind of competition you will be faced with. I want to remind you that this model is a low cost stereo model, and as such, its performance may not measure up to what you consider is acceptable performance.

I am glad to note that you are very much interested in the gift package described in our letter of October 16. This is an item specifically intended to generate higher sales volume on the ROYAL "250" and "275," by both the manufacturer and the distributor contributing to the cost of the package. In other words, the intention was for the dealer to acquire this package without charge, based of course on his accepting the allocation or minimum quantities specified by the distributor. Frankly, I do not know how such a promotion can work out in the United Kingdom with the increased costs resulting from duties, transportation, and the purchase tax. I am wondering what you have in mind in the usage of this promotional item and will welcome your advice on the matter.

This gift package comes complete with the Textron case, batteries, and earphones. Including the gift box, if ordered separately, the distributor's net cost, f.o.b. factory, would be in the neighborhood of $4. As currently available, all these gift boxes have already been packed with all items, except the set itself. The set of 4 Z-8 ZENITH batteries has a distributor's cost of 36 cents only. If you can find excellent use of this material to promote your sales of the ROYAL "250" and "275," we might be able to work out a deal with you, whereby we could sell you the gift box com-

plete with all 3 items—that is, the batteries, Textron case, and earphones—for only $1.85 f.o.b. factory.

The gift package sample was airmailed to you on Monday, October 19, upon receipt of which and further consideration of this matter, please determine if it has possibilities to boost your sales volume. If so, please let us know the quantity of packages you will be interested in, to see if we can support your requirements, because the latest information we have from our domestic people is that they are way oversold already on these gift packages.

Kindest personal regards and best wishes.

Sincerely,

/s/ J. A. MIGUEL, JR.

J. A. Miguel, Jr./m
Airmail

Kensington 6925
Ref:ARR/GS/3819
29th October. 1959

Mr. John A. Miguel, Jr., Vice-President,
Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.

Dear Mr. Miguel,

I am enclosing copy of letter which we have written today to Mr. Collaro who was complaining bitterly about a service charge which we made for repair of an old 500 and as he threatened to discuss this matter with your people in Chicago we feel that you should be aware of the facts.

1) We charged £ 3.13.3d. for fitting a new loudspeaker, re-aligning the set and complete overhaul ($10.50).

2) The delay in executing this job was exactly the time of transit of the part required, clearance from Customs and repair time.

This matter is naturally not very important but we feel very embittered that while we are striving very hard to give excellent service to everybody and in fact these servicing jobs on old sets are not economical propositions to us, we occasionally get someone who feels that everybody should crawl in front of him.

With kindest regards,

Yours sincerely,

R

Encl.

Kensington 6925
Ref: ARR/GS/3877
10th November, 1959

Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.

Attention: Mr. R. M. Carstens

Dear Mr. Carstens,

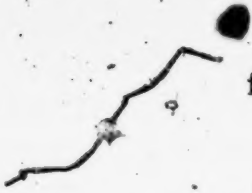
Thank you for your letter of the 6th instant and we are very pleased to hear that there is some possibility of incorporating the long wave in some of the models.

To show the importance and urgency of this matter I cabled you yesterday and there is no exaggeration whatsoever in saying that if your models had a long wave it would at least double the sales as this is the greatest objection. In fact, even such powerful models like the 500 cannot be used in certain districts.

I do realise how extremely busy your Engineering Department must be at this time but we shall appreciate it if

you will kindly urge them to do something for us.

Thanking you in advance.



Yours very truly,

for United Mercantile Company, Ltd.

R.

Director

Kensington 6925
Ref: ARR/GS/3932
17th November, 1959

Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.

Attention: Mr. H. L. Grimm

Dear Mr. Grimm,

We sent you a cable yesterday requesting you to in future crate all the stereophonic instruments which are being sent to us as, unfortunately, the last consignment which came on the "Queen Elizabeth" has been damaged.

Up to now we have found a 2530R badly smashed and a 2535 damaged, and the damage appears to be on the corners of the cabinet which are not sufficiently protected.

This is very disturbing as we have been waiting for these instruments rather badly.

We are now unpacking the rest of the consignment as well as that from the "Rutenfjell" and we shall see what has happened to the rest.

We hope that you will be agreeable to do the crating free of charge to us taking particularly into consideration the fact that our mark up on the stereophonic instruments is completely uneconomical and we do not enjoy any special price for them.

I hope this letter reaches you in time for the next consignment to be crated.

Yours very truly,

for United Mercantile Company, Ltd.

R.

Director

Kensington 6925
Ref: ARR/GS/3935
17th November, 1959

Mr. John A. Miguel, Jr., Vice-President,
Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.

Dear Mr. Miguel,

Thank you for your letters of the 10th and 12th instant.

1) As far as Mr. Collaro is concerned it is exactly what you wrote to us that we have told him and this is the policy which we are maintaining that while supplies of spares for current models are now available from stock, spares for obsolete models have to be drawn from the States, and there is very little doubt that no other radio distributor is giving the same service which we are trying to give our customers.

As we wrote to you previously on the subject of Mr. Collaro, this is a particular case of a very pompous man who complained in fact not so much at the delay but at the price charged.

We still get quite a number of people who feel that they should be exempt from payment of duty, taxes, postages, etc.

2) Sales: Your letter of the 12th has crossed with our letter in which we advised you that the 850 has already been

featured on the T.V. twice and is being featured again on the programmes of the 20th and 27th.

Yesterday, we had a chat with Granada T.V. Network and there is a very good possibility that they will take Zenith sets as prizes for their "Concentration" programme.

Therefore, you can see that we had exactly the same ideas regarding promotion of the models which are not so famous or easily saleable as 500 or 1000D.

As far as the mention of long wave in our leaflet is concerned, we did not underline this point too strongly bearing in mind that every British or Continental set even of the cheapest quality has long wave and, therefore, there is nothing special about it.

Yesterday, we received the air consignment with the 10—780's which are extremely nice, but we would like to mention that your packaging will have to be reconsidered as up to now I have found two slightly damaged——one had a grill bent and one the leather squashed on the side.

With kindest regards,

Yours sincerely,
R.

Kensington 6925
Ref:ARR/GS/3942
19th November, 1959

Mr. John A. Miguel, Jr., Vice-President,
Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.

Dear Mr. Miguel,

With regret we have to report that in the last few weeks we have been experiencing more and more trouble on ac-

count of quality of some of the sets which are being sent to us.

The complaints are of two kinds, technical and outside appearance and the latter complaint is much more common.

In the last 3/4 weeks we have had a few dozen sets returned and while at first I wondered whether the customers had damaged these sets I took special care to unpack some myself. Just to quote you a few examples:

1. One SFD2575. I went with our man to install it and I am enclosing the inspection tickets. I found that there were bad finger marks on the dial, the tuning knob was out of centre and as far as cabinet work was concerned it was very poor indeed. Here again the little handle on the door was out of level—just the same thing which we have already reported to you previously.

2. One SFD257Y. Installed yesterday. The 45 rpm spindle was missing and since we have discovered that they were missing also on two other instruments. We already reported in the past that one was missing on a 2530 and all these instruments have not been opened by Customs and, therefore, they must have left the factory without the spindles.

3. We are enclosing copy letter which we have received from a very important customer and since this letter has been written, three sets had to come back. These sets were opened by our Mr. Spink and found to be in a very bad condition indeed, dirty, scratched, etc.

4. In the consignment of the 10—780's which we received by air and which were extremely urgent, we found the following:

Two have the bottom gilt strip missing.

One had a badly dented and squashed grill.

One is not in working condition.

Only yesterday a set was returned to us from Fortnum & Mason, a 500 on which the knob was missing.

I do realise that there must be terrific pressure of work in the factory but I would like you to bear in mind that Zenith in England is considered the same way as Rolls Royce and people are paying such high prices that they expect most perfect merchandise.

Looking forward to your comments.

With kindest regards,

Yours sincerely,

Encls.

RAMSAY LONDON
WUCABLES 1 LDN
RAMSAY LONDON

WU/Z.14. CHICAGO ILL 14 18 1010AMC (VIA WU CABLES)

LT RAMSACO
LONDON
PLEASE OPEN CREDIT DLRS3200.00 NINE STEREO UNITS YOUR CABLE 11/16
ZENITHRAD.

(CREDIT DLRS3200.00)
SENT 1/54AM JL
RAMSAY LONDON

Kensington 6925
Ref:ARR/GS/3997
1st December, 1959

Zenith Radio Corporation,
International Division,
6001 Dickens Ave.,
Chicago 39, Illinois.
For attention Mrs. Barbara Knulys

Dear Mrs. Knulys,

With reference to your letter of the 20th November, we are enclosing request for credit under the Co-operative Advertising Scheme.

Enclosed please find all the necessary proofs and we hope that you will find them in order.

The amount credited please put to the credit of our account with you.

Yours sincerely,

for United Mercantile Company, Ltd.
Director

Encls.

1/59 1. 12. 59

August 1959				
15, 22, 29	Electrical & Radio Trading)	£	400.10.11	200. 5. 5.
15, 22, 29	Wireless & Electrical Trader)			
	Wireless & Electrical Trader Art)		64.11. 2	32. 5. 7.
August 15.	Electrical & Radio Trading Work)			
August 22.	Electrical & Radio Trading		43. 2.11	21.11. 5.
August 29.	Electrical & Radio Trading)		47. 5. 6	23.12. 9.
	The Dealer)			
Sept.—Oct.	Electrical & Radio Trading)			
	Music Trades Review)		181.19. 1	90.19. 6.
	Pianomaker)			
	Wireless & Electrical Trader)			
	Anglo-American News)			
	Art Work re above		138. 3. 9	69. 1.11.
			18. 6. 7	9. 3. 4.
	Wireless & Elec. Trader Year Book		18.19. 5	9. 9. 9.
November	Dealers' Adverts Art Work)		109.16. 6	54.18. 3.
			£1022.15.10	511. 7.11.

All proofs attached

ZENITH RADIO CORPORATION
6001 Dickens Ave.
Chicago 39, U. S. A.
International Division

December 14, 1959

Cable Address
"Zenithrad"
All Codes

United Mercantile Company, Ltd.
Park Lodge, Park Close
London, S.W. 1, England
Attention: Mr. A. R. Ramsay

Gentlemen:

Many thanks for yours of December 8, reference ARR/GS/4039.

We understand your action now regarding the unit for Lord Melchett.

It certainly is a feather in your cap relative to the British nobility buying ZENITH for, from a business standpoint, it certainly is good advertising for you even though not from a copy standpoint, much less to mention the prestige which seems so all important in this commercial world of ours today. In any event, certainly you are to be complimented.

With the initial period between our respective concerns, fairly under way things have undoubtedly settled down to the normal routine of business now, and I would like to make some personal comments.

With all that you are faced with in your market, relative to price, competition and alike, I certainly think that you have accomplished a very good initial showing. Your approach to the marketing and servicing of ZENITH's products has certainly been very gratifying indeed. I had the opportunity to check over some of your advertising, your

dealer set-up and your all important service set-up and it is a pleasure to see a good business approach such as you have formulated.

I wish to take this opportunity to extend my sincerest wishes for the coming holiday season and further that 1960, will be a very prosperous year accented by good health and happiness.

Kindest regards.

Yours very truly,

/s/ H. L. GRIMM
H. L. Grimm
International Division

HLG:sn
Airmail

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 61

WIRELESS AND ELECTRICAL TRADER
22 August 1959

NEW PRODUCTS
THE TRADER'S regular feature bringing first news of the latest radio and electrical lines

Zenith Transistor Models for British Market

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1 (Knightsbridge 2135).

The 1960 Zenith range of models now being distributed here (see News pages) includes transistor pocket, portable and clock receivers. They are quality models for discriminating buyers, at relatively high prices. Zenith stereo high fidelity reproducers will also be available to order. Models in stock now are:

Royal 250. Six transistor pocket radio. 540-1,600kc/s. Two-tone moulded cabinet. 3-1/2in. by 5-7/8in. by 1-1/2in. Price £32 inc. tax.

Royal 275B. Seven transistor pocket radio. Other details as Royal 250. Price £37 10s 3d inc. tax.

Royal 675. Six transistor portable radio. 540-1,600kc/s. 4in. speaker. Leatherette case with handle. 4-5/16in by 8-7/16in by 2-15/16in. Price £37 10s 3d inc. tax.

Model C519. Clock radio for A.C. mains. "Snooze alarm" timer. 540-1,600kc/s. Telechron clock with luminous hands. Plastics cabinet in choice of colours. 13-9/16in by 5-3/4in by 6-1/2in. Price £31 12s 11d inc. tax.

Royal 850. All-transistor portable clock radio. 540-1,600kc/s. Battery-operated clock. Plastics case in choice of colours. 9-15/16in by 4-5/8in by 2-5/8in. Price £44 9s 8d inc. tax.

Royal 950. All-transistor portable clock radio. Appearance as high class mantel clock in swivel stand. Price £93 18s 11d inc. tax.

Model B600. Trans-Oceanic A.C./D.C. or battery 7 band transportable at £91 6s 9d and the Royal 1000D all-transistor 9 band portable at £175 9s 6d, inc. tax, are also available.

• • •

WIRELESS AND ELECTRICAL TRADER
30 April 1960

• • •

Zenith All-Transistor A.M./F.M. Portable Radio Set Introduced

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1 (Knightsbridge 2135).

First American-made A.M./F.M. transistorized portable radio receiver now available in this country from the main distributors, United Mercantile, is the Zenith Trans-Symphony, Royal 2000. Using a complement of 10 transistors, plus A.F.C. transistor and three germanium diodes, the receiver has a total of 11 tuned circuits on F.M. and eight on A.M.

Zenith Trans-Symphony Royal 2000 has a power source of eight D cells for about 300 hours' use at normal volume.

Circuit features include A.F.C., a combined A.M./F.M. I.F. strip, A.G.C., and an R.F. stage optimized for both A.M. and F.M. Speakers: 7in by 5in and Alnico 5. Power ontput: 1/2W. There are three built-in antennas, one for A.M. and two for F.M., the latter including a telescopic dipole. The set measures 10-1/16in by 11-5/8in by 4-7/8in and weighs 11-3/4lb including batteries. Price £114 18s 3d, tax paid.

• • •

WIRELESS AND ELECTRICAL TRADER
3 September 1960

• • •

Zenith RYL100 Transistor Pocket Radio Receiver
United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1 (Knightsbridge 2135).

Latest release by the Zenith Radio Corporation is Zenette Model RYL100. This set has been introduced to meet the demand for a smaller version of the company's personal radio. Although smaller in overall dimensions nothing has been sacrificed in styling, performance or quality of reproduction, it is stated.

The new receiver is available in four alternative finishes: white, yellow, beige, or charcoal, and will sell at 26gn (List price £20 13s 5d, purchase tax £6 12s 7d).

At the same time the company announced that Models RYL250 and RYL275 have been reduced in price as follows: RYL250, £20 13s 5d list, plus purchase tax of £6 12s 7d; and RYL275, £25 8s 10d list, plus purchase tax of £8 3s 2d.

• • •

3 September 1960
WIRELESS AND ELECTRICAL TRADER

Available in four different colours from United Mercantile Co. Ltd., the Zenette Model RYL100 transistor radio sells for 26gn.

• • •

15 October 1960

WIRELESS AND ELECTRICAL TRADER

NEW PRODUCTS

THE TRADER'S regular feature bringing first news of the latest radio and electrical lines

Zenith A.C./D.C. Table Radio

United Mercantile Co. Ltd., Park Lodge, Park Close, London, S.W.1 (Knightsbridge 2135).

First supplies of two new A.C./D.C. radio receivers—Model F615, Zephyr, and Model F512, Executive—will be distributed later this month by United Mercantile Co. Ltd.

Cabinet of the Zenith Model F512, Executive, table radio is fully-finished at the back and can be placed anywhere.

Their waveband coverage is 540-1,600c/s with pre-set position for reception of B.B.C. light programme on long wave.

Model F615, Zephyr. A table radio receiver with picture-frame front using five valves and a power rectifier. The 7in by 5in speaker is tilted to direct sound upwards to the listener. Features include the new Zenith Filter-tenna internal aerial which improves signal-to-noise ratio; tuned frequency stage; special bass boost circuit; variable tone control and precision vernier tuning. The Polystyrene cabinet is available in charcoal with ivory grille and Roman gold trim; cadet blue with blue mist grille and silver trim; or tan with beige grille and Roman gold trim. Size: 10-7/8in by 6-7/16in by 8-7/8in high. Price £19 1s 6d, plus £6 2s 6d tax.

Zenith Model F615, Zephyr, has a picture frame cabinet and sells at 24gn.

Model F512, Executive. A superhet table radio receiver with four valves and a power rectifier. Speaker: 4in with Alnico 5 magnet. Features include automatic volume control; built-in aerial and large easy-grip tuning control. The

polystyrene cabinet has a circular brush perforated aluminum grille and a fully finished back giving it an attractive appearance from any angle. Colours: two-tone willow green with green grille; beige and dark brown with gold grille; Cordovan brown and antique white with gold grille; and starch white and Cerulean blue with silver grille. Size: 10-1/2in by 3-1/4in by 6-5/8in high. Price £15 2s, plus £4 17s tax.

• • •

12 November 1960

WIRELESS AND ELECTRICAL TRADER

NEW PRODUCTS

THE TRADER'S regular feature bringing first news of the latest radio and electrical lines

• • •

Zenith Shirt-Pocket Radio

United Mercantile Co. Ltd., Park Lodge, Park Close, S.W.1 (Knightsbridge 2135).

Smaller than a postcard and only 1-1/4in deep, the Zenith Royal 50 is an all-transistor shirt-pocket radio receiver introduced from America by United Mercantile Co. Ltd. The new set is built to play at normal volume for about 75 hours on two standard penlight batteries.

Zenith Royal 50 uses an air dielectric tuning condenser for accurate tuning with on-station stability. Circuit features include Zenith Wavemagnet antenna which produces a high sensitivity to signals and automatic volume control which compensates for variations in signal strengths while tuning from station to station or when moving the set. A private listening attachment and custom-designed carrying case are optional at slight extra cost. The slim-style cabinet is available in solid white or black; or in two-tones, charcoal, beige or Chinese red with white. Price £15 10s, plus £4 19s 6d tax.

• • •

WIRELESS AND ELECTRICAL TRADER
6 May 1961

• • •

Zenith Converta Transistor Set

United Mercantile Co. Ltd., Sovereign House, Queen Street, Mayfair, London, W.1.

An auxiliary speaker cabinet which converts a pocket transistor radio receiver, 'ess than 5in long, into a table radio has been added to the American Zenith range distributed by United Mercantile.

Converta, as the unit is named, comprises the Zenith Royal 50C pocket-size transistor radio (selling separately at 19-1/2gn) which plugs into the cabinet containing a larger speaker and provides sufficient volume for full-room listening. The cabinet, which is charcoal-coloured, matches the grey and white personal set. Price of the Royal 50C and the speaker cabinet is £28 7s, tax paid.

Zenith Navigator Radio

The United Mercantile Co. are also marketing in this country the Zenith Navigator portable transistorized radio, which, as well as receiving normal stations, can be used for standby navigation purposes by private pilots and yachtsmen as it covers weather stations and L.F. directional beacons. Wavebands: 550-1,600Kc/s and 150-400Kc/s. Eight transistors are used giving 500mW of undistorted output. Operating on small torch batteries which give it over 300 hours working life, the Navigator weighs only 5lb. The Nav-Nor control in the Nav position eliminates the automatic volume control to provide sharper null even on powerful broadcasts and on marine beacons. This control also allows for build and fade orientation and cone identification. Price £69 6s 11d, tax paid.

• • •

4 November 1961
WIRELESS AND ELECTRICAL TRADER

NEW PRODUCTS

THE TRADER'S regular feature bringing first news of the latest radio and electrical lines

Six Zenith Transistorized Radios

United Mercantile Co. Ltd., 13-14 Queen Street, London, W.1 (Grosvenor 4901).

Well in time for the Christmas trade, six new models have been added to the range of Zenith transistorized radio receivers now obtainable in this country from United Mercantile, the sole distributors. The company have recently entered the U.K. hearing aid market.

Zenith Royal 500H De Luxe pocket radio has eight transistors. Speaker: 5in by 3in. The nylon case is available in ebony, white or two-tone grey with a gold front. Price £33 13s 6d, plus £11 17s 9d tax.

United Mercantile's Royal 710LG radio is powered with batteries providing up to 350 hours of operation.

Zenith Royal 400 is a seven-transistor pocket radio with a 5in by 3in speaker. Maximum output: 200mW. Case available in ebony, white, two-tone dark and willow green. Price £25 8s 10d plus £8 19s 6d tax.

Zenith Royal 675LG, portable transistor radio receiver with a Permawear cabinet and a 4in speaker. It uses four torch batteries and is priced £25 8s 10d, plus £8 19s 6d tax.

Zenith Royal 710 LG has seven transistors and gives 500mW audio output. It is powered by torch batteries and has a 4in speaker. Price £32 13s 8d, plus £11 10s 9d tax.

Zenith Royal 755LG is an improvement on the previous Royal 755. Output has been doubled to 500mW and has a pre-set Long Wave position for the Light Programme. Price £36 7s 6d, plus £12 16s 9d tax.

• • •

Zenith Royal 400 pocket radio. [Picture Omitted.]

Zenith Royal 780LG, Navigator, has been improved and the output doubled to 500mW. Price £44, 5s, plus £15 12s 4d tax.

• • •

WIRELESS AND ELECTRICAL TRADER

14 April 1962

• • •

Zenith Range Increased

United Mercantile Co. Ltd., Sovereign House, 13-14 Queen Street, Mayfair, London, W.1 (Grosvenor 4901).

Three more Zenith radios, the Royal 125, Royal 650 and Model J727, are now available over here from United Mercantile. Both the Royal radios cover the medium waveband (540-1,600kc/s) and incorporate six transistors plus two germanium diodes.

Below are three of the latest additions to the Zenith range of radio receivers marketed here by United Mercantile. Left, Model J727 A.M./F.M. mains set; centre, Royal 125 personal radio; and right, Royal 650 portable set.

Royal 125 personal radio receiver is powered by two pen torch batteries. It incorporates 6 to 1 vernier tuning and has an output of 135mW maximum or 80mW undistorted. Available in three colour schemes, charcoal, yellow and white, and beige and brown, the Royal 125 measures 2-11/16 by 1-9/32in by 4-3/8in high and weighs 9-1/3oz with batteries. Price, complete with personal earphone, £18 5s 7d, plus £6 9s 2d purchase tax.

Royal 650 portable radio receiver is powered by four pen torch batteries. Speaker: 3-1/2in. Output: 350mW maximum, 200mW undistorted. It is fitted with a carrying handle and finished in tan, ebony and ivory. Dimensions: 7-1/4 in by 2--13/16in by 4-13/16in high. Weight: 1-3/4lb including batteries. Price, complete with personal earphone attachment, £19 10s, plus £6 17s 8d purchase tax.

Model J727 A.M./F.M. mains radio receiver incorporates a Telechron electric clock. Wavebands: 88-108 Mc/s, 540-1,600kc/s. Valves: seven. Speaker: 6in by 4in. The clock incorporates a sleep switch control that automatically turns the radio off up to one hour after the control is set and an alarm that rings 10 minutes after the radio has automatically switched on in the morning. It is finished in three colour schemes of briar brown, ivory white and tarragon green. Dimensions: 13-5/8in by 6-13/16in by 7-3/4in high. Price £36 7s 6d, plus £12 16s 9d purchase tax.

• • •

3 November 1962

WIRELESS AND ELECTRICAL TRADER

NEW PRODUCTS

THE TRADER'S regular feature bringing first news of the latest radio and electrical lines

• • •

Zenith Vocalaire Portable

United Mercantile Co. Ltd., Sovereign House, 13-14 Queen Street, London, W.1 (Grosvenor 4901).

The Vocalaire Royal 880, a compact a.m./f.m. transistor portable manufactured by Zenith of America, is now available in this country from the sole distributors, United Mercantile. It is encased in a cabinet which is weather resistant and finished in tan or ebony.

Vocalaire Royal 880 a.m./f.m. radio receiver is powered by six UII batteries. Transistors: nine, plus three germanium diodes. Speaker: 4in. Output: 400mW (maximum), 250mW (undistorted). Aerial: telescopic for f.m. A socket is provided for a personal earphone. Dimensions: 9-3/4in by 4-9/16in by 6-9/16in high. Weight. 6lb (with batteries). Price £46 10s, plus £13 8s 7d tax.

Zenith Vocalaire Royal 880 portable. [Picture Omitted.]

• • •

WIRELESS AND ELECTRICAL TRADER
17 November 1962

NEW PRODUCTS
THE TRADER'S regular feature bringing first news of the latest radio and electrical lines

• • •

Zenith Stereo FM Tuners

United Mercantile Co. Ltd., Sovereign House, 13-14 Queen Street, Mayfair, London, W.1 (Grosvenor 4901).

Now available from United Mercantile are two Zenith a.m./f.m. stereo radio tuners, Models MHT14 and MHT15. Both models are supplied as a component in drop-in tuner form. Although the tuners are designed for the American market, the present B.B.C. trials are virtually the same system as that employed in the U.S.A. (the B.B.C. tests are continuing until December, for details see page 406). Dealers purchasing one of these tuners can gain experience of stereo Multiplex radio. Wavebands: 550-1,600 Kc/s and 88-108Mc/s. Both models, of which the only difference is found in the circuitry, are priced at £52 10s, plus £15 3s 2d tax.

• • •

26 January 1963
WIRELESS AND ELECTRICAL TRADER

• • •

Zenith Multi-band Portable

United Mercantile Co. Ltd., 13-14 Queen Street, London, W.1 (Grosvenor 4901).

The Royal 3000, multi-band a.m./f.m. transistor portable manufactured by the Zenith Radio Corporation of Chicago, is now available in Britain from United Mercantile. The Royal 3000 is the latest of the compact luxury portables in the Trans-Oceanic range, first introduced by Zenith more than 20 years ago.

Static-free f.m. coverage with "no-drift" tuning has been added to the long, medium and short wave bands, offering the listener a choice of radio stations across the world.

The six international short wave bands have band spread tuning on 2-4Mc/s, 4-9Mc/s, 31, 25, 19 and 16m.

Zenith Trans-Oceanic Royal 3000 a.m./f.m. portable radio receiver is powered by nine torch batteries. Transistors: 12, plus three germanium diodes and an a.f.c. diode. Speaker: 6in by 4in. Output: 500mW. There are 21 tuned circuits, 11 on f.m. and 10 on long, medium and short wavebands. A telescopic aerial is folded into the carrying handle and the radio can be used as an a.m./f.m. tuner when linked to the amplifier speaker system of hi-fi or stereo equipment. Other features include a time zone dial; world time map; log charts listing the world's major shortwave stations, together with their frequencies and hours of best reception; a dial light for night time tuning; and a calibrated scale for logging and relocating stations. Finished in satin chrome with a durable black covering the cabinet measures 12-1/2in by 5-3/8in by 10-1/4in high. Weight: 13-1/2lb, with batteries. Price £132 17s, plus £38 7s 3d tax.

• • •

PLAINTIFF'S LONDON DEPOSITION EXHIBIT No. 62

ELECTRICAL AND RADIO TRADING, May 7, 1960

• • •

Zenith AM/FM Transistor Portable

Circuit features in the Royal 2000 high-performance AM/FM transistor portable include AFC, a combined AM/FM IF strip, efficient AGC, and an RF stage optimised for both AM and FM. The set is made in the USA by Zenith and marketed in this country by United Mercantile Company.

Luxury Zenith Royal 2000 AM/FM transistor portable receiver. [Picture Omitted.]

Undistorted output of 1/2W is delivered through a 7 x 5in speaker. There are three built-in aerials—one for AM, two for FM—plus provision for connecting an external FM

aerial. An impressive specification also lists vernier tuning, gram input tuner, output and earphone jack; there is tone control.

A claimed response of 30-10,000c/s is attainable on FM in the "flat" position. On AM, the response is reduced about an octave for better signal-to-noise ratio.

Receiver weighs 11-3/4lb with batteries which are eight 'D' cells for about 300 hours' use at normal volume. Chassis is mounted in an inverse position, attached to the top as well as the front of the cabinet. Trim cabinet is covered in black weather-resistant Permawear, accented by brushed aluminum and chrome-plated trim.

Retail price is £114 18s 3d inclusive and distribution through appointed dealers.

United Mercantile Co. Ltd., Park Lodge, Park Close, London SW1.

• • •

ELECTRICAL AND RADIO TRADING,
September 10, 1960

NEW PRODUCTS

• • •

Zenith Zenette Royal 100 transistor radio for M waves with plug-in transistors. [Picture omitted.]

Zenith Zenette Pocket Radio

Plug-in transistors are used in a camera-styled pocket radio—the Zenette Royal 100, extending the range of Zenith receivers from America. They are easily removed for checking and avoiding possible damage when tracing or soldering adjacent circuits.

Reception of M waves is on the firm's Wavemagnet antenna and tuning is by an air-dielectric condenser for accurate setting and stability. Push-pull Class B output of 180mW maximum is into a 2-3/4in Zenith Alnico 5 speaker claimed to give the finest tone quality from a set of its size.

Provision is also made for private listening.

Up to 100 hours' playing time is provided by three penlite batteries or 300 hours on mercury batteries. Battery compartment is leak resisting.

Case is of pebble grain finish in charcoal, British tan, green, yellow or white, and there is a pull-out stand at the back.

Price 26gns including £6 12s 7d PT.

At the same time the firm has reduced two prices: RYL250 is down from £32 to 26gns including £6 12s 7d PT; RYL275 from £37 10s 3d to 32gns, including £8 3s 2d PT.

United Mercantile Co. Ltd., Park Lodge, Park Close, London SW1.

• • •

ELECTRICAL AND RADIO TRADING,
October 22, 1960

NEW PRODUCTS

• • •

Particular colour versions of two Zenith AC/DC receivers shortly to be available. Left, the Executive beige and dark brown model F512L with gold colour grille. Right, the Zephyr charcoal F615C with ivory grille and Roman gold colour trim. [Picture omitted.]

Zenith AC/DC Table Receivers

Two more Zenith radio receivers will be ready for distribution towards the end of the month—the Executive and the Zephyr—both AC/DC table models.

The Executive, model F512, is in a modern style polystyrene cabinet, 10-1/2 x 6-5/8 x 3-1/4 in, with a distinctive circular-brushed perforated aluminum grille and metallised legs.

Model F512F is two-tone willow green with green grille; F512C, Cordovan brown and antique white with gold colour

grille; F512L beige and dark brown with gold colour grille, and F512W, starch white and Cerulean blue with silver colour grille.

This is a four-valve set plus rectifier employing Zenith Royalty Crest valves. Built-in Wavemagnet antenna and circuit receives M waves, fully tuned, with a pre-set position for Light on L. Output is into a Zenith 4in speaker with an Alnico 5 magnet. Price 19gns, including £4 17s PT.

Features of the Zephyr, model F615, are the aerial, called a Zenith Filter-tenna, and the shape of the receiver.

The aerial is described as a ferrite plate loop encased in specially developed electrostatic shield helping to filter out annoying static caused by household appliances, fluorescent lights, motors and so on. It is said to improve signal-to-noise ratio.

Shape includes a sloping front panel behind which is fitted a 7 x 5in Zenith speaker with Alnico 5 magnet. Overall size of the polystyrene cabinet is 10-7/8 x 8-7/8 x about 6-1/2in and finishes available are: F615C, charcoal with ivory grille and Roman gold trim; F615B, cadet blue with blue mist grille and silver trim; F615L, tan with beige grille, Roman gold trim.

This receiver, for M waves only, has five valves plus a rectifier. First valve is a tuned RF stage. Output has bass boost.

Price is 24gns including £6 2s 6d PT.

United Mer[illegible]ntile Co. Ltd., Park Lodge, Park Close, London SW1.

ELECTRICAL AND RADIO TRADING,
November 19, 1960

NEW PRODUCTS

• • •

Shirt-Pocket Radio by Zenith

From America comes another all-transistor pocket radio receiver, the Royal 50, but so small that it is called a shirt-pocket radio.

It is said to be smaller than a postcard and only 1-1/4 in. deep, yet it uses a Zenith Wavemagnet in-built aerial and an air-dielectric tuning condenser for station stability.

Royal 50 is claimed to play at normal volume for about 75 hours on two standard penlite batteries. With longer life mercury batteries it operates up to 180 hours.

The unbreakable case is available in white, black, charcoal grey and antique white, beige and antique white, or Chinese red and antique white. Price 19-1/2gns. including £4 19s. 6d. PT, but without the batteries.

Zenith shirt-pocket transisto radio available from stock [Picture omitted.]

United Mercantile Co. Ltd., Park Lodge, Park Close, London, SW1.

• • •

ELECTRICAL AND RADIO TRADING,
February 11, 1961

NEW PRODUCTS

• • •

Zenith Luxury Radiograms

High-quality stereo/mono radiograms are now included in the range of American Zenith instruments available in this country.

Craftsman-made cabinets in veneers and solid woods, precision engineering on the mechanical side, high quality components and advanced circuitry are all backed by a London Service Department headed by a Zenith-trained engineer.

The Liszt, stereo/mono AM/FM Zenith radiogram with a total of 40W push-pull output into four speakers and continuously variable reverberation control. [Picture omitted.]

The example here illustrated, the Liszt stereo/mono AM/FM, model SFF2585H retailing at 531gns. including £135 8s. 9d. PT, has a continuously variable reverberation control.

Cabinet, in cherry veneers and solid wood with French provincial styling, measures 52in. long, 32in. high, and 18-3/8in. deep.

Built-in AM and a line cord FM aerial receive L, M and VHF/FM, the FM circuits being of the supersensitive type with automatic frequency control.

On the gramophone side a Cobra-Matic four-speed changer plays 14 seven-inch, 12 ten-inch, or 10 twelve-inch records, dealing with mixed 10 and 12in. of the same speed, on a turntable of the heavy-duty type with smooth and constant speed and automatic shut-off after the last record.

A lightweight Cobra tone arm, locking in position when not in use, carries a dual-needle barium titanate cartridge.

Push-pull dual-channel amplifier and pre-amplifier is specified as having a total maximum 40W output with flat response from 20 to 20,000c/s.

Acoustic chambers, one at each end of the cabinet, each contain a 12in. speaker and a hi-fi horn type treble tweeter the pair covering 40 to 15,000c/s.

There are four tone controls: separate bass and treble and a presence control covering 4,000 to 8,000 cycles to bring a vocalist to the front and, in addition, the continuously variable reverberation control to add echo and concert chamber effects to the required degree.

Other models in this luxury range are also available.

United Mercantile Co. Ltd., 13-14 Queen Street, London W1.

• • •

ELECTRICAL AND RADIO TRADING,
April 29, 1961

Zenith 'Convertible' Transistor Radio

An auxiliary speaker cabinet is now available for the American Zenith Royal 50C pocket transistor radio. Plugging into the cabinet provides sufficient clarity and volume for room listening; the 5in. long radio with its own speaker is easily detached when necessary.

American Zenith transistor radio fitted into the auxiliary larger speaker cabinet for extra volume. [Picture omitted.]

Charcoal colour cabinet matches the grey and white pocket set. Price of the Convertible is 27gns. inclusive; the Royal 50C is obtainable separately at 19-1/2gns. inclusive.

The Zenith Radio Corporation, Sovereign House, Queen Street, London W1.

ELECTRICAL AND RADIO TRADING,
May 13, 1961

NEW PRODUCTS

Transistor Radio and Navigator

Zenith is now marketing a Navigator portable transistor set, designed for private pilots and yachtsmen, to cover the broadcasting band as well as weather stations and LF directional beacons.

Circuit embodies eight transistors; tuning is over 550 to 1,600k/cs and 150 to 400k/cs; output is about 500mW undistorted, operating from torch batteries providing about 300 hours working.

Zenith portable transistor set for broadcast, weather station and LF beacon reception. [Picture Omitted.]

The set is fitted with an accurate and easily read azimuth scale for taking cross-bearings and has precision vernier tuning on the main control.

There is also a NAV-NOR control which, in the normal position, NOR, brings in AVC for standard broadcast and weather stations, but cuts it out on the NAV position to provide a sharper null even on powerful broadcast stations, low frequency aviation stations, beacons and marine beacons, allowing also for build and fade orientation and cone identification.

Price, including PT, is £69 6s. 11d.

United Mercantile Co. Ltd., Sovereign House, Queen Street, Mayfair, London, W.1.

ELECTRICAL AND RADIO TRADING,
April 21, 1962.

Three Zenith Releases Include Clock Radio

Zenith AM-FM mains powered clock radio with AFC, AGC, bass boost and 6 x 4in. speaker. Line cord doubles as aerial for FM. [Picture omitted.]

One of three American Zenith radio sets introduced by United Mercantile, sole United Kingdom distributor, is the J727, an AC-DC AM-FM clock model with AFC on FM.

Price of £46 17s. 7d. includes tax. Clock operates the radio as directed, and a buzzer alarm rings ten minutes after the set comes on.

Circuit refinements include AGC, bass boost, 6 x 4in. speaker, vernier tuning, built-in AM (MW) aerial, line cord FM aerial.

Other two receivers are six-transistor types, one, the Royal 125, a pocket model.

It tunes over MW, operates from two penlite cells.

Price £23 11s. inclusive.

Royal 650 at £25 2s. 7d. inclusive covers the M band and has a preset Light programme position on LW.

Power derives from four penlite cells in separate section of the chassis.

United Mercantile Co. Ltd., Sovereign House, 13-14 Queen Street, London W1. Grosvenor 4901 (Ref. 268).

• • •

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 63
ELECTRICAL AND RADIO TRADING,
September 23, 1961
ERT An Odhams Press Publication

• • •

BRITISH TV, RADIO SETS TOO CHEAP
SAYS ZENITH MAN

Prices of British TV and radio sets are too low, thinks the director of the British distributor for Zenith, which markets a transistor radio for £179. Adam Ramsey, director of United Mercantile, said last week that the difficulties of the British TV and radio industry were mainly of its own making.

"Prices and profit margins are too low," he declared. "As a result, not enough money is available for research, design and new developments. This prevents firms from bringing out a sufficient flow of really new models to create increased consumption.

"Some British manufacturers have brought price levels down to such a degree that today it is almost a case of profitless selling."

• • •

PLAINTIFF'S LONDON DEPOSITION EXHIBIT
No. 64
WIRELESS AND ELECTRICAL TRADER
29 April 1961

• • •

The Zenith Radio Corporation have recently opened this new showroom at Sovereign House, Queen Street, Mayfair, W.1. The company is now marketing, in this country, a wide range of radios and stereophonic sound reproducers, from pocket-sized transistors costing under £20, to modern hi-fi stereo models at over £500. [Picture Omitted.]

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 7771A
Invoice Date 6/26/62

Marks:

SOLD TO United Mercantile Co., Ltd.

Quantity	Model	Description	Net Per Unit	Total
1	K2108L	Television		$ 109.43
1	K2717W	"		126.13
		17 tube set		
1	K2228R	Television		150.14
1	K3345W	"		192.41
1	K3385H	"		237.31
		17 tube & 6 transistor sets		
1	MK3388H	Television combo		
		34 tube & 6 transistor set		451.13

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 8165 A
Invoice Date 8/24/62

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms:
E0-8600, 8780	Phone 7-26 235/62-233/62 9975	8/22/62	Inland Shipping Co., PPd.	L/C

Quantity	Model	Description	Net Per Unit	Total
1		Color TV Chassis "Fixture" (Repair Stand)		$ 25.00
1	K3385H	Television		243.76

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 8630
Invoice Date 10/17/62

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms:
9291 E0 9358	10439 Phone 10-15	10/17/62	C.S. Greene Coll.,	SD 180 DAYS

Quantity	Model	Description	Net Per Unit	Total
1	K3311W	Television (220V) 17 Tube set & 6 transistors	176.52	176.52
	SW39W	TV Base	7.95	7.95

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 9053
Invoice Date 12/3/62

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms:
E0 9811	Dec.	11/29/62	Lifschultz Coll.	L/C

Quantity	Model	Description	Net Per Unit	Total
2	K3311R	Television (220V) 17 Tube & 6 Transistor sets	176.52	353.04

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue NAtional 2-9000
Chicago 39, Ill. U.S.A.

Invoice No. X 8885
Invoice Date 11/14/62

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
E0 9475	Nov.	11/14/62	ABC Collect	L/C

Quantity	Model	Description	Net Per Unit	Total
1	K2717W	Television (220V) 16 Tube Set		129.14

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 9863
Invoice Date 12/17/62

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms:
FP-11959, 11754 E0-9863	Dec. Cable 11/17/62	12/14/62	Lifschultz Collect	L/C

Quantity	Model	Description	Net Per Unit	Total
1	K2228L	Television (220V) 17 Tube & 6 Transistor Set		150.14

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 6857
Invoice Date 3/2/62

SOLD TO: United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms:
E0 7512	Cable 2-27	3/2/62	Inland PPD	CIA

Quantity	Model	Description	Net Per Unit	Total
1	J2214L	Television J 22 Tube Set	142.80	142.80

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 6549
Invoice Date 1/30/62

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms:
E0 7048	195/61 PX 8088	1/30/62	Inland Coll.,	L/C

Quantity	Model	Description	Net Per Unit	Total
1	J3368R	Television 16 Tube 8 Transistor Set	236.70	236.70

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Invoice No. X 6097
Invoice Date 12/12/61

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
E0 6544	Phone 11/24	12/12/61	Inland Coll.,	L/C

Quantity	Model	Description	Net Per Unit	Total
2	MH2787W	Television Combo 33 Tube Set	362.73	725.46
2	MH2786W	Television Combo 29 Tube Set	323.87	647.74
2	H3375H	Television	292.73	585.46
2	H3368M	"	261.00	522.00
2	H3353W	" 24 Tube Sets	218.16	436.32
4	MJ2789M	Television 33 Tube Set	388.64	1,554.56
				$4,471.54

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue NAtional 2-9000
Chicago 39, Ill. U.S.A.

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Invoice No. X 5873
Invoice Date 11/21/61

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
E0 6060, 6287	186/61 174/61,	11/21/61	Lifschultz Coll.,	L/C

Quantity	Model	Description	Net Per Unit	Total
1	H2231L	Television 27 Tube Set	154.82	154.82
1	95-1890	Transf.	10.27	10.27
1	95-1762	"		7.15
1	136-49	Slo Blow Fuse		.13

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 5365
Invoice Date 9/29/61

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

• • •

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
E0 5877	944 (9/22)	9/29/61	ABC Coll.,	L/C

Quantity	Model	Description	Net Per Unit	Total
1	H2211C	Television 20 Tube Set	133.07	133.07
1	95-1761	PT Transf.	10.08	10.08
1	95-1762	Trans. (SP. Comm)	7.15	7.15
		Capitan De Fragato Contador Manuel O. Vaccari Packing Chge.	4.00	4.00
2	H2717R	Television 22 Tube Set	130.79	261.58
2	95-1890	PT Transf.	10.27	20.54
		Sr. Dino Masau (One set) Sr. Juan B. Viganale (One set) Packing Chge.	4.00	8.00
1	H2717W	Television 22 Tube Set	130.79	130.79
1	95-1890	PT Transf.	10.27	10.27
		Comodoro Wal er Leowel Cora Jansen Packing Chge.	4.00	4.00
1	H2717E	Television 22 Tube Set	134.11	134.11
1	95-1890	PT Transf.		10.27
		Subeficial Mayor Andres Ochat Packing Chge.		4.00
				737.86

• • •

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 4467
Invoice Date 5/25/61

SOLD TO United Mercantile Co., Ltd.
13-14 Queen St., Mayfair
London W. 1, England

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
H0 4864	5/18	5/25/61	Lifschultz Coll.,	CIA

Quantity	Model	Description	Net Per Unit	Total
1	G3341B	Television		202.97
1	95-1760	SD Transf.		10.27
		Packing Chge.		4.00
				217.24

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

SOLD TO United Mercantile Co., Ltd.
Park Lodge, Park Close
London S.W. 1, England

Invoice No. X 1673
Invoice Date 4/19/6

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
1294 E0 1297, 27180		4/19/60 3/3/60	Lifschultz Collect	L/C CDC #110

Quantity	Model	Description	Net Per Unit	Total
90	R500YE	Radios	30.62	2,755.80
30	R500WE	"	30.62	918.60
30	R500RE	"	30.62	918.60
		8 Transistor Sets		
42	R1000D	Portable Radios (9 Transistor) Sets	113.81	4,780.02
4	DR105H	Radial Spkrs.	25.99	103.96
2	DR105L	"	25.99	51.98
6	DR102L	"	15.58	93.48
2	SFD2505RT	Stereo	142.91	285.82
2	SFD2505ET	Stereo	145.12	290.24
2	SFD2505YT	"	149.59	299.18
		4 Tube Sets		
6	ET10	Tuners (Six Tube Unit)	36.41	218.46
6	4F143	150 Watt Step Down Transf.	7.43	44.58
	SFD2501H	Stereo	119.70	119.70
	SFD2501E	"	119.70	239.40
		3 Tube Sets		
3	4F143	150 Watt Step Down Transf.	7.43	22.29
1	SFD2560E	Stereo		228.69
2	SFD2565R	"	238.46	476.92
2	SFD2565M	"	238.46	476.92
3	SFD2575L	"	285.61	856.83
2	SFD2580R	"	306.20	612.40
		15 Tube Sets		
2	SFD2515RT	Stereo	164.01	328.02
		8 Tube Set		
12	4F144	(SD250) Transf.	7.88	94.56
21	VM9327	Idler Wheels	.50	10.50

Invoice

ZENITH SALES CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 1673
Invoice Date 4/19/60

SOLD TO United Mercantile Co., Ltd.

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
			SS. Queen Elizabeth	

Page #2

Quantity	Model	Description	Net Per Unit	Total
1	E2015L	Television	145.27	145.27
1	95-1761	Power Transf.	10.08	10.08
1	95-1762	"		7.15

Invoice

ZENITH RADIO CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

SOLD TO United Mercantile Co., Ltd.
Park Lodge, Park Close
London S.W. 1, England

Invoice No. X 30773A
Invoice Date 11/12/59

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
27374, 27182, 27372, 27373	see below	11/12/59	Lifschultz Collect	L/C

Quantity	Model	Description	Net Per Unit	Total
20	R780Y	Radios	48.50	970.00
		[Hand written note:] Radio & Accessories & 8 Transistors Set		
15	B600	Radios	65.09	976.35
		6 Tubes Sets		
18	S15715	Ballast Adaptors	1.50	27.00
8	B600L	Radios	74.36	223.08
		6 Tube Sets		
18	Z985X	Batteries	4.34	78.12
50	R675L	Radios	26.24	1,312.00
		6 Transistors Sets		
8	C519C	Radios	20.69	165.52
		Packing Chge.	.30	2.40
3	C519L	"	20.69	62.07
		" "	.30	.90
8	C519W	"	20.69	165.52
		" "	.30	2.40
		4 Tubes Sets		
13	44 x 2	50 Cycle Clock Rotors	.65	9.75
19	95-1317	Step Down Transformers	2.00	38.00
20	R710L	Radios	30.49	609.80
		7 Transistors Sets		
20	R755L	Radios	39.93	798.60
		8 Transistors Sets		
20	R1000D	Radios	113.81	2,276.20
		9 Transistors Sets		
4	C724L	AM/FM Radio	35.97	143.88
		Packing Chge.	.25	1.00
4	C724G	"	35.97	143.88
		" "	.25	1.00
4	C725L	"	41.97	167.88
		" "	.25	1.00

Invoice

ZENITH RADIO CORPORATION
6001 Dickens Avenue BErkshire 7-7500
Chicago 39, Illinois

R 29944A

SOLD TO United Mercantile Co., Ltd.
Park Lodge, Park Close
London S.W. 1, England

SHIPPED TO
Same

Shipped Via	Date Shipped	Your Order No.	Our Order No.	Invoice Date
Insured Parcel Post	7/31/59	Ltr 7-3 #3051	E0 26339	7/31/59

Quantity	Part No. or Model	Description	Price	Amount
		8 Transistor Sets		
2	R750L	Radios Ser. 721728, 710707	$45.57	$ 91.14
2	R760L	" 6858716, 6858645	55.97	111.94
		7-Transistor Sets		
1	R950	Radio Ser. 683596		75.00

• • •

Invoice

ZENITH RADIO CORPORATION
International Division
6001 Dickens Avenue
Chicago 39, Ill. U.S.A.

Invoice No. X 30054
Invoice Date 8/18/59

SOLD TO United Mercantile Co., Ltd.
Park Lodge, Pk, Close
London S.W..1, England

• • •

Our Order No.	Your Order No.	Date Shipped	Via	Terms: Net Cash F.O.B. Factory Chicago
E0 26441	Cable 8-1	8/18/59	Lifschultz Collect	L/C

Quantity	Model	Description	Net Per Unit	Total
50	R250L	Radio 6 Transistor Sets	23.20	1,160.00
40	R850C	Radio 7 Transistor Sets	35.55	1,422.00
30	R850L	7 Transistor Sets	35.55	1,066.50
		Packing Chge.	.45	31.50
30	R850W	Radio 7 Transistor Sets	35.55	1,066.50
		Packing Chge.	.45	13.50
30	R275B	Radio 7 Transistor Sets	25.97	779.10
30	R275J	Radio 7 Transistor Sets	25.97	779.10
30	R275Y	Radio 7 Transistor Sets	25.97	779.10
20	R760L	Radio 8 Transistor Sets	48.50	970.00
4	R950	Radio 7 Transistor Sets	75.00	300.00
		Packing Chge.	.50	2.00
				$8,369.30

• • •

Invoice

ZENITH RADIO CORPORATION
6001 Dickens Avenue BErkshire 7-7500
Chicago 39, Illinois

R 30166A

SOLD TO United Mercantile Co., Ltd.
Park Lodge, Park Close
London SW. 1, England

• • •

Shipped Via	Date Shipped	Your Order No.	Our Order No.	Invoice Date
PP. Ins #5659276	9/2/59	Ltr 7/3 #3051	E0 26463	9/3/59

Quantity	Part No. or Model	Description	Price	Amount
2	R710L	Radios (Ser. #775682-751728) 7 Transistor Sets	34.47	68.94
		Postage & Insurance		3.48
				$ 72.42

• • •

2083 IN THE UNITED STATES DISTRICT COURT,
For the Northern District of Illinois,
Eastern Division.

Hazeltine Research, Inc.,
Plaintiff,
vs.
Zenith Radio Corporation,
Defendant,
and
Zenith Radio Corporation,
Counterclaimant,
vs.
Hazeltine Research, Inc., and
Hazeltine Corporation,
Counterdefendants.

Filed May 13, 1965
A..... o'clock .....
Elbert A. Wagner,
Jr. Clerk.
No. 59 C 1847.

STATEMENT REQUIRED BY RULE 12(d) OF THE RULES OF THE UNITED STATES COURT OF APPEALS, FOR THE SEVENTH CIRCUIT.

The name of the appellee is: Zenith Radio Corporation.

The names and addresses of counsel for the appellee:

Thomas C. McConnell;
Philip J. Curtis, 134 S. LaSalle Street, Chicago, Illinois;
Francis W. Crotty, 1900 N. Austin Avenue, Chicago, Illinois;
Dugald S. McDougald, 135 S. LaSalle Street, Chicago, Illinois.

/s/ Thomas C. McConnell,
Attorney for Appellee.